

UČNI NAČRT PREDMETA / COURSE SYLLABUS (leto / year 2017/18)						
<b>Predmet:</b>		Matematični seminar				
<b>Course title:</b>		Mathematical seminar				
<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
Magistrski študijski program Matematika		ni smeri		2		prvi in drugi
Master's study programme Mathematics		none		2		first and second
<b>Vrsta predmeta / Course type</b>				obvezni / compulsory		
<b>Univerzitetna koda predmeta / University course code:</b>				M2726		
<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>
	30				60	3
<b>Nosilec predmeta / Lecturer:</b>		prof. dr. Matjaž Konvalinka, prof. dr. Primož Moravec				
<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>		
Vpis v letnik študija.				Enrolment in the programme.		
<b>Vsebina:</b>				<b>Content (Syllabus outline):</b>		

<p>Predmet je sestavljen iz treh delov.</p> <p>Na srečanjih z matematiki študenti poslušajo predavanja diplomiranih matematikov, ki delajo v gospodarstvu. Predavatelji na kratko predstavijo svojo študijsko in poklicno pot in se po predavanju s študenti pogovorijo. Na srečanja so vabljeni matematiki s čim bolj različnimi profili, da študenti dobijo čim boljši vpogled v to, kakšne možne kariere so jim na voljo.</p> <p>Srečanja z vodjo seminarja so namenjena predstavitev magistrskih del in praks. S predstavitev magistrskega dela se študent bolj poglobi v svojo izbrano temo in izboljšuje svoje sposobnosti podajanja matematične snovi zahtevnejšemu občinstvu, poslušalci podrobneje spoznajo novo matematično področje. Predstavitve prakse pa spodbujajo študente, da se tudi sami odločijo za praktično usposabljanje in s tem izboljšajo svoje zaposlitvene možnosti.</p> <p>Organizirane so še delavnice (s pomočjo Kariernih centrov Univerze v Ljubljani), na katerih se študenti naučijo pisanja življenjepisa in se pripravijo na iskanje zaposlitve in razgovor za delovno mesto.</p>	<p>The course consists of three parts.</p> <p>At meetings with mathematicians the students attend lectures of mathematicians who have chosen a career in industry. The lecturers present their careers, and converse with the students after their lecture. Mathematicians with a wide spectrum of careers are invited, in order for the students to get a better understanding of their career options.</p> <p>At meetings with the seminar organizer, the students present their Master's theses and the results of their internships. By presenting his or her Master's thesis, the student gains a deeper understanding of the subject and improves his or her presentation skills, the listeners learn more about the chosen area of mathematics. Presentations of internships encourage other students to improve their career potential by finding a work-study as well.</p> <p>Additional workshops are organized (with the help of the Career Centers of the University of Ljubljana) to help students write a CV and to be better prepared for a job hunt and the first job interview.</p>
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**Temeljni literatura in viri / Readings:**

Članki v raziskovalnih revijah in znanstvene monografije, ki jih študentje potrebujejo pri pisanju svojega magistrskega dela.

**Cilji in kompetence:**

**Objectives and competences:**

Študent spozna delo matematika, izpopolni sposobnost predstavitve svojega dela, pripravi se na stik z delodajalcem.

The student learns more about work done by mathematicians, improves his or her presentation skills, becomes better prepared for the first contact with potential employers.

**Predvideni študijski rezultati:**

Znanje in razumevanje: Poznavanje osnovnih načel pisanja življenjepisa in prijave na razpisano delovno mesto, sposobnost predstavitve svojega dela

Uporaba: Pridobljene informacije in spretnosti bodo uporabne pri iskanju zaposlitve in stiku z delodajalci

Refleksija: Razumevanje možnosti zaposlitve na osnovi predstavljenih primerov.

Prenosljive spretnosti – niso vezane le na en predmet: Na osnovi predstavitev primerov zaposlitev matematikov študent dobi jasnejšo sliko o svoji bodoči poklicni karieri.

**Intended learning outcomes:**

Knowledge and understanding: Preparation of CV and job applications, oral presentation of one's work

Application: Information and skills obtained are useful for finding employment and contact with employers.

Reflection: Understanding career options based on presentations of workers with a degree in Mathematics

Transferable skills: A better understanding of their career options.

**Metode poučevanja in učenja:**

predavanja matematikov, zaposlenih v praksi, predavanja strokovnjakov Kariernih centrov UL, študentske predstavitve tem za magistrsko delo, študentske predstavitve opravljenega dela pri praksi

**Learning and teaching methods:**

Lectures of mathematicians who work in the industry, lectures prepared by Career centers of UL, student presentations of Master's theses, student presentations of internships

**Načini ocenjevanja:**

Delež (v %) /

Weight (in %)

**Assessment:**

Način (domače naloge, seminarska naloga, ustno izpraševanje):

60%

Type (homework, seminar paper, oral exam, coursework, project):

aktivne udeležbe na predstavitev gostov iz gospodarstva in kratka predstavitev teme magistrskega dela v prvem semestru

40%

active participation and short presentation of master thesis in the first semester

<p>daljša predstavitev teme magistrskega dela v drugem semestru</p> <p>Ocene: 1-5 (negativno), 6-10 (pozitivno) (po Statutu UL)</p>		<p>presentation of main results of master thesis in the second semester</p> <p>Grading: 1-5 (fail), 6-10 (pass) (according to the Statute of UL)</p>
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**Reference nosilca / Lecturer's references:**

KONVALINKA, Matjaž, PAK, Igor. Triangulations of Cayley and Tutte polytopes. *Advances in mathematics*, ISSN 0001-8708, 2013, vol. 245, str. 1-33. [COBISS.SI-ID 16706905]

KONVALINKA, Matjaž. Skew quantum Murnaghan-Nakayama rule. *Journal of algebraic combinatorics*, ISSN 0925-9899, 2012, vol. 35, no. 4, str. 519-545. [COBISS.SI-ID 16250713]

KONVALINKA, Matjaž. Divisibility of generalized Catalan numbers. *Journal of combinatorial theory. Series A*, ISSN 0097-3165, 2007, vol. 114, iss. 6, str. 1089-1100. [COBISS.SI-ID 14354265]

MORAVEC, Primož. Unramified Brauer groups of finite and infinite groups. *American journal of mathematics*, ISSN 0002-9327, 2012, vol. 134, no. 6, str. 1679-1704. [COBISS.SI-ID 16521305]

MORAVEC, Primož. On the Schur multipliers of finite  $p$ -groups of given coclass. *Israel journal of mathematics*, ISSN 0021-2172, 2011, vol. 185, no. 1, str. 189-205. [COBISS.SI-ID 16311129]

MORAVEC, Primož. On pro- $p$  groups with potent filtrations. *Journal of algebra*, ISSN 0021-8693, 2009, vol. 322, iss. 1, str. 254-258. [COBISS.SI-ID 15098201]