UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	Matematični seminar
Course title:	Mathematical seminar

Študijski program in stopnja **Study programme and level**	**Študijska smer** **Study field**	**Letnik** **Academic year**	**Semester** **Semester**
Magistrski študijski program Matematika	ni smeri	2	prvi in drugi
Master's study programme Mathematics	none	2	first and second

Vrsta predmeta / Course type	obvezni
Univerzitetna koda predmeta / University course code:	M2726

Predavanja **Lectures**	**Seminar** **Seminar**	**Vaje** **Tutorial**	**Klinične vaje** **work**	**Druge oblike študija**	**Samost. delo** **Individ. work**	**ECTS**
	30				**60**	**3**

Nosilec predmeta / Lecturer:	prof. Matjaž Konvalinka, prof. Primož Moravec

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:**
Vsebina:	**Content (Syllabus outline):**

Predmet je sestavljen iz treh delov. 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. Srečanja z vodjo seminarja so namenjena predstavitvam magistrskih del in praks. S predstavitvijo 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. Predstavitev prakse pa spodbuja študente, da se tudi sami odločijo za praktično usposabljanje in s tem izboljšajo svoje zaposlitvene možnosti. 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.	The course consists of three parts. 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. 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. 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.

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 empoyers.

Predvideni študijski rezultati:	**Intended learning outcomes:**
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.	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:	**Learning and teaching methods:**
predavanja matematikov, zaposlenih v praksi, predavanja strokovnjakov Kariernih centrov UL, študentske predstavitve tem za magistrsko delo, študentske predstavitve opravljenega dela pri praksi	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): aktivne udeležbe na predstavitvah gostov iz gospodarstva in kratka predstavitev teme magistrskega dela v	60% 40%	Type (homework, seminar paper, oral exam, coursework, project): active participation and short presentation of master thesis in the first

prvem semestru daljša predstavitev teme magistrskega dela v drugem semestru Ocene: 1-5 (negativno), 6-10 (pozitivno) (po Statutu UL)		semester presentatation of main results of master thesis in the second semester Grading: 1-5 (fail), 6-10 (pass) (according to the Statute of UL)

Reference nosilca / Lecturer's references:

Matjaž Konvalinka:

– 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]

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

Primož Moravec:

– 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]

– 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. 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]