UČNI NAČRT PREDMETA / COURSE SYLLABUS (leto / year 2017/18)			
Predmet:	Diplomski seminar		
Course title:	Diploma seminar		

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Univerzitetni študijski program Matematika	ni smeri	3	prvi in drugi
First cycle academic study programme Mathematics	none	3	first and second

Vrsta predmeta / Course type	obvezni / compulsory

Univerzitetna koda predmeta / University course code:	M0258

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje work	Druge oblike študija	Samost. delo Individ. work		ECTS
	60				150		7

Nosilec predmeta / Lecturer:	prof. dr. Matjaž Konvalinka, prof. dr. Sašo Strle

Jeziki / Languages:	Predavanja / Lectures:	slovenski / Slovene
	Vaje / Tutorial:	slovenski / Slovene

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	Prerequisites:
Vpis v letnik študija. Opravljen predmet Seminar.	Enrolment in the programme. Completed course Seminar.
Vsebina:	**Content (Syllabus outline):**

Vodja seminarja skupaj z vsemi učitelji na Oddelku za matematiko pripravi zadostno število krajših samostojnih tem praviloma skupaj z osnovnim gradivom. Študenti sami poiščejo še dodatne vire. V drugem semestru so organizirana predavanja matematikov iz prakse, ki bodo študentom predstavili različne zaposlitvene možnosti.	With the help of all lecturers from Department of mathematics, the seminar leader prepares a sufficient number of short independent topics with the relevant basic literature. Student, however, can look for additional sources. In the second semester, mathematicians in practice will present the employment opportunities to the students.

Temeljni literatura in viri / Readings:

gradivo, ki ga pripravi vodja seminarja

S. Krantz: A primer of mathematical writing, American Mathematical Society, 1997.

Cilji in kompetence: Objectives and competences:

Predmet je namenjen izdelavi in predstavitvi zaključne seminarske naloge. Izdelava seminarske naloge se začne in večinoma opravi v prvem semestru, potem pa jo študent dokonča v drugem semestru.	The purpose of the course is a preparation and a final presentation of the final seminar work. The preparation of the seminar work starts and is mostly done in the first semester, the second semester is used for the finalization.

Predvideni študijski rezultati: Intended learning outcomes:

Znanje in razumevanje: Študent se nauči uporabe literature in na njeni osnovi pripraviti krajšo predstavitev in napisati seminarsko nalogo. Uporaba: Pridobljene izkušnje mu bodo v pomoč v času študija pri drugih predmetih in kasneje v delovnem okolju. Refleksija: Povezovanje pridobljenih spretnosti s strokovnim znanjem. Prenosljive spretnosti – niso vezane le na en predmet: Pridobljene izkušnje mu bodo v	Knowledge and understanding: Students learn to look for additional sources and learn how to prepare a short presentation and write a seminar work. Application: Gained experience will be of use during the course of study for other courses and later for work. Reflection: The ability to connect new skills to the expertise. Transferable skills: Gained experience will be of use during the course of study for other courses

pomoč pri vseh drugih predmetih, ki zahtevajo predstavitev ali izdelavo domače naloge.	that require presentation or homework.

Metode poučevanja in učenja:	**Learning and teaching methods:**
Vsak študent pripravi tri predstavitve in izdela seminarsko nalogo v obsegu 20 do 30 strani. V prvi predstavitvi, ki traja 15 minut, predstavi širši okvir teme, glavne rezultate in motivacijo. V drugi predstavitvi, ki traja eno šolsko uro, podrobno predstavi del teme, pri tem je poudarek na vsebinski razlagi konceptov. Zadnja predstavitev, ki traja 20 minut, predstavlja zaključek študija, zato jo lahko študent opravi šele, ko ima opravljene vse ostale izpite. V sklopu vseh predstavitev je tudi diskusija, kjer študent odgovarja na vprašanja iz širšega področja teme.	Each student prepares three presentations and a seminar paper in the length of 20 to 30 pages. In the first presentation, which lasts 15 minutes, a wider framework of the topic is presented along with the motivation and main results. In the second presentation, which lasts 45 minutes, part of the topic is presented in details with the emphasis on the substantive interpretation of the concepts. The final presentation, which lasts 20 minutes, presents the formal end of the study and can be done only after the student passes all the exams. A part of the presentation is a discussion where student has to answer questions from a wider field of the topic.

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način: Ocena predstavitve Ocena seminarske naloge ocene: 1-5 (negativno), 6-10 (pozitivno) (po Statutu UL)	 50% 50%	Type: PresentationSeminar paper grading: 1-5 (fail), 6-10 (pass) (according to the Statute of UL)

Reference nosilca / Lecturer's references:

KONVALINKA, Matjaž, PAK, Igor. Geometry and complexity of O'Hara's algorithm. Advances in applied mathematics, ISSN 0196-8858, 2009, vol. 42, iss. 2, str. 157-175. [COBISS.SI-ID 15545945]

KONVALINKA, Matjaž. On quantum immanants and the cycle basis of the quantum permutation space. Annals of combinatorics, ISSN 0218-0006, 2012, vol. 16, no. 2, str. 289-304. [COBISS.SI-ID 16310873]

KONVALINKA, Matjaž, SKANDERA, Mark A. Generating functions for Hecke algebra characters. Canadian journal of mathematics, ISSN 0008-414X, 2011, vol. 63, no. 2, str. 413-435. [COBISS.SI-ID 15872857]

OWENS, Brendan, STRLE, Sašo. A characterisation of the n<1>[oplus]<3> form and applications to rational homology spheres. Mathematical research letters, ISSN 1073-2780, 2006, vol. 13, iss. 2, str. 259-271. [COBISS.SI-ID 13873241]

STRLE, Sašo. Bounds on genus and geometric intersections from cylindrical end moduli spaces. Journal of differential geometry, ISSN 0022-040X, 2003, vol. 65, no. 3, str. 469-511. [COBISS.SI-ID 13135193]

STEFANOVSKA, Aneta, STRLE, Sašo, KROŠELJ, Peter. On the overestimation of the correlation dimension. Physics letters. Section A, ISSN 0375-9601. [Print ed.], 1997, vol. 235, str. 24-30. [COBISS.SI-ID 607828]