UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	Komuniciranje v matematiki
Course title:	Communicating mathematics

Študijski program in stopnja **Study programme and level**	**Študijska smer** **Study field**	**Letnik** **Academic year**	**Semester** **Semester**
Visokošolski strokovni študijski program Praktična matematika	ni smeri	2	prvi
First cycle professional study programme Practical Mathematics	none	2	first

Vrsta predmeta / Course type	obvezni
Univerzitetna koda predmeta / University course code:	M0426

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

Nosilec predmeta / Lecturer:	prof. Andrej Bauer, prof. Primož Potočnik

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

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisites:**
Vsebina:	**Content (Syllabus outline):**

Študenti se bodo naučili pripraviti krajše seminarje. V okviru predmeta se bodo na podlagi lastnih izkušenj in opazovanja drugih usposobili za nastopanje pred razredom, izdelovanje predstavitev, poročil in podobnih izdelkov. Naučili se bodo, kaj je pomembno za uspešno predstavitev in uspešno napisano seminarsko nalogo. V praksi bodo spoznali in usvojili uporabo računalniških orodij za pripravo predstavitev.		Students will learn to prepare short seminar presentations. They will gain the experience how to present it and prepare the corresponding documents. They will learn about the structure and basic components of a presentation. They will also learn and acquire the skills to use the presentation making tools.

Temeljni literatura in viri / Readings:

gradivo, ki ga pripravi vodja seminarja

Krantz, S.G. A primer of mathematical writing. AMS, 1998.

Borwein, J., Rocha, E.M., Rodrigues, J.F. Communicating Mathematics in the Digital Era. CRC Press, 2008.

Mittelbach, F., Goossens, M., Braams, J., Carlisle, D. The LaTeX Companion (Tools and Techniques for Computer Typesetting). Addison-Wesley, 2. izdaja, 2004.

Kolin, P.C. Successful Writing at Work. Cengage Learning, 10. izdaja, 2012.

Steenrod, N.E., Halmos, P.R., Schiffer, M.M., Dieudonne, J.A. How to Write Mathematics. AMS, 1973.

Paradis, J.G., Zimmerman, M.L. The MIT Guide to Science and Engineering Communication. MIT, 2. izdaja, 2002.

Montgomery, S.L. The Chicago Guide to Communicating Science. University of Chicago Press,

2002.

Cilji in kompetence:	**Objectives and competences:**
Študentje bodo spoznali zgradbo in sestavine predstavitev, se usposobili za njih pripravo z ustreznimi orodji ter za samo izvedbo predstavitve.	Students acquire knowledge about the structure and basic components of presentations. They will learn how to prepare and present them and, using appropriate tools, how to produce the corresponding documents.

Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje: Študent se nauči pripraviti krajšo predstavitev in napisati seminarsko nalogo.	Knowledge and understanding: Students learn to prepare, present and document a short presentation on selected topic.
Uporaba: Pridobljene izkušnje mu bodo v pomoč v času študija pri drugih predmetih in kasneje v delovnem okolju.	Application: The acquired skills will be useful during the study and later in his/her professional activities.
Refleksija: Povezovanje pridobljenih spretnosti s strokovnim znanjem.	Reflection: Connecting the acquired skills with the professional knowledge.
Prenosljive spretnosti – niso vezane le na en predmet: Pridobljene izkušnje mu bodo v pomoč pri vseh drugih predmetih, ki zahtevajo predstavitev ali izdelavo domače naloge.	Transferable skills: The acquired skills can be useful in all other courses that require from students reporting about their activities.

Metode poučevanja in učenja:	**Learning and teaching methods:**

Predavatelj uvodoma prestavi splošne in specifične prijeme pri pisnem in ustnem komuniciranju matematičnih vsebin. V nadaljevanju vsak študent v sodelovanju s predavateljem izbere primerno matematično temo, ki jo nato predstavi pred razredom. Temo predstavi tudi v pisni v obliki krajšega matematičnega članka. Poudarek je na sami izvedbi predstavitve na seminarju in na kakovosti izdelkov.	The lecturer presents general and specific methods of written and oral communication of mathematical topics. Each students, with the help of the lecturer, chooses an appropriate mathematical topic and present it in front of the classroom. The student also prepares a short mathematical article on the chosen topic. The emphasis is on the public presentation and the quality of the produced documents.

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
oddani izdelki (prosojnice, članek, poster) predstavitev in zagovor izdelkov Ocene: 5 (negativno), 6-10 (pozitivno) (po Statutu UL)	50% 50%	documents (presentation slides paper, poster) public presentation Grading: 5 (fail), 6-10 (pass) (according to the Statute of UL)

Reference nosilca / Lecturer's references:

Andrej Bauer:

– BAUER, Andrej. A ralationship between equilogical spaces and Type Two Effectivity. Mathematical logic quarterly, ISSN 0942-5616, 2002, vol. 48, suppl. 1, str. 1-15 [COBISS.SI-ID 12033369]

– AWODEY, Steve, BAUER, Andrej. Propositions as [Types]. Journal of logic and computation, ISSN 0955-792X, 2004, vol. 14, no. 4, str. 447-471 [COBISS.SI-ID 13374809]

– BAUER, Andrej, SIMPSON, Alex. Two constructive embedding-extension theorems with applications to continuity principles and to Banach-Mazur computability. Mathematical logic quarterly, ISSN 0942-5616, 2004, vol. 50, no. 4/5, str. 351-369 [COBISS.SI-ID 13378649]

Primož Potočnik:

– POTOČNIK, Primož, WILSON, Stephen. Linking rings structures and semisymmetric graphs: Cayley constructions. European journal of combinatorics, ISSN 0195-6698, 2016, vol. 51, str. 84-98. [COBISS.SI-ID 17462361]

– Potočnik, Primož; Šparl, Primož. On the radius and the attachment number of tetravalent half-arc-transitive graphs. Discrete Math. 340 (2017), no. 12, 2967–2971. [COBISS.SI-ID 18142297]

– Kuzman, Boštjan; Malnič, Aleksander; Potočnik, Primož Tetravalent vertex- and edge-transitive graphs over doubled cycles. J. Combin. Theory Ser. B 131 (2018), 109–137. [COBISS.SI-ID 1540135620]