Univerza v Mariboru
University of Maribor

Fakulteta za naravoslovje in matematiko / Faculty of Natural Sciences and Mathematics

OPIS PREDMETA / SUBJECT SPECIFICATION	
Predmet:	**Seminar**
Subject Title:	Seminar

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Izobraževalna matematika, enopredmetni študij, 2. stopnja		1.	**2.**

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. Vaje Lab. Work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
	30				90	**4**

Nosilec predmeta / Lecturer: Bojan HVALA

Jeziki / Languages:	**Predavanja / Lecture:**	slovenski / Slovenian
	Vaje / Tutorial:	slovenski / Slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisites:**
Jih ni.	There are none.

Vsebina:	**Contents (Syllabus outline):**
Študent preštudira zaključeno poglavje iz elementarne matematike in na to temo pripravi zaokroženo predavanje. Pri predstavitvi uporabi sodobna tehnična sredstva. Gradivo odda v pisni obliki. Sama tematika se lahko iz leta v leto spreminja, prav tako temeljna literatura.	A student get a deeper insight in a topic from elementary mathematics and presents it in a concise presentation. The use contemporary technical tools at the presentation is welcome. A student also prepares a written material. The main topic of the Seminar varies as well as basic references.

Temeljni študijski viri / Textbooks:

Se iz leta v leto spreminjajo. Gradivo so lahko bodisi poljudno pisane knjige,bodisi članki iz revij, ki prinašajo zanimive elementarne rezultate, kot npr. Mathematical Gazette, Mathematical Magazine, American Mathematical Monthly itd.

The basic references change from year to year. The basic materials could be either texstbooks on elementary problems, or articles from journals, bringing interesting results from elementary mathematics, as Mathematical Gazette, Mathematical Magazine, American Mathematical Monthly etc.

Cilji:	**Objectives:**

• Študent se sooči s samostojnim poglabljanjem v literaturo. • Študent pripravi daljšo seminarsko predstavitev obravnavane tematike. Pri tem uporabi sodobna tehnična sredstva, kot so programi za dinamično geometrijo, programi za simbolno računanje, programi za risanje krivulj in ploskev ter podobno. • Študent se seznani z osnovami pisanja matematičnega teksta.	• Student faces the experience of individual access to math material. • Student prepares longer presentation of a given topic. At this presentation he uses contemporary technical tools as computer software for dynamic geometry, symbolic calculation and presenting curves and surfaces and other ICT devices. • Student gets familiar with the basic roles of writing mathematical texts.
Predvideni študijski rezultati:	**Intended learning outcomes:**
Znanje in razumevanje: • Spoznavanje novih vsebin iz elementarne matematike. • Spoznavanje pristopa k samostojni obravnavi novega teksta . • Začetna izkušnja glede priprave seminarskega predavanja • Začetna izkušnja glede pisanja matematičnega teksta. Prenesljive/ključne spretnosti in drugi atributi: • Seminarsko predavanje pomeni vajo v komuniciranju z uporabniki pri predstavitvi matematičnih vsebin. To je pomembna veščina za diplomante matematike, ki so primarno orientirani h komuniciranju z uporabniki. • Spoznavanje osnovnih pravil pri pisanju matematičnega teksta predstavlja osnovo za obsežne tovrstne dejavnosti na drugi stopnji študija, pa tudi kasneje pri morebitnem matematičnem publiciranju. • Spoznavanje razlike med dobesednim prevodom določenega teksta in dvofaznim postopkom, pri katerem prva faza pomeni poglobljeno razumevanje, druga pa predstavitev osebnega videnja in razumevanja tematike, je ključna osnova za kvalitetno delo na podlagi strokovne literature.	Knowledge and Understanding: • Discovering new results in elementary mathematics. • Getting familiar with the individual approach to math materials. • Introductionary experience in presenting mathematical topics in seminar. • Knowledge about the roles in writing mathematical texst. Transferable/Key Skills and other attributes: • Seminar presentation is a good exercise in presenting mathematical topics to the audience. This is an important skill for mathematicians, basically orientated in work, where contact with users is essential. • Knowledge about the roles in writing mathematical texts makes a basis for extended activities of this kind on higher levels of education, as well as a basis for possible publication efforts later. • Understanding the difference between a literate translation of the mathematical text and the two phase procedure, in which the first phase brings deep understanding and the second phase means the presentation of this individual understanding in a way, that is partly independent form the original text. This understanding is crutial for quality educational work on a basis of written materials.
Metode poučevanja in učenja:	**Learning and teaching methods:**
• Samostojno delo • Analiza seminarjev • Analiza pisnega izdelka	• Individual work • Discussion on presentations • Comments on written works

Načini ocenjevanja:	Delež (v %) / Weight (in %) **Assessment:**

• Seminarska predstavitev teme • Oddano pisno gradivo.	60%, 40%	• Oral presentation • Written presentation

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Materialni pogoji za izvedbo predmeta :	***Material conditions for subject realization***
• *Predavalnica* • *Računalnik s primerno programsko opremo* • *LCD projektor*	• *Lecture hall* • *Computer with appropriate software* • *LCD projector*

Obveznosti študentov:	***Students' commitments:***
(pisni, ustni izpit, naloge, projekti)	*(written, oral examination, coursework, projects):*
• Enourni seminar • Oddana pisna naloga. • Udeležba pri seminarjih in aktivna udeležba pri njihovi analizi.	• Longer oral presentation • Written presentation • Presence during the seminaries and active contribution in discussions.