



UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION

Predmet: Individualno raziskovalno delo II

Subject Title: Individual research work II

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Matematika		2	3
Mathematics		2	3

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Konzultacije Tutorial	Lab. vaje Labor work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
		5			745	25

Nosilec predmeta / Lecturer: Habilitirani nosilci predmetov v programu / Teachers listed in the program

Jeziki / Predavanja / Lecture: Slovenski jezik; Slovene

Languages: Vaje / Tutorial: Slovenski jezik; Slovene

Pogoji za opravljanje študijskih obveznosti:

Individualno raziskovalno delo študenta predvideva vključitev v projekt in raziskavo zastavljenega problema pod vodstvom mentorja kot pripravo za doktorsko nalogo.

Prerequisites:

Individual research work proposes the student's participation in a project and research of a particular problem with support from a supervisor. This is seen as preparation for a PhD thesis.

Vsebina:

Študent se podrobneje seznani z načinom izdelave doktorske naloge in predela okvirno literaturo. Skupaj z mentorjem oblikuje dispozicijo doktorske naloge in prediskutira njeno vsebino z ostalimi študenti na seminarju.

Content (Syllabus outline):

Student learns the detailed procedure of elaboration of PhD thesis and gets familiar with basic written sources related to the content of his research. He creates a disposition of his future PhD thesis and discusses its contents with other students on the seminar.

Temeljna literatura in viri / Textbooks:

- Science and technology research in progress. Mathematics: Academic Media.
- Kandiller, L. Principles of mathematics in operations research, Berlin: Springer-Verlag 2007.
- Makarovič, J. Misel in sporočilo: Kako uspešno študirati, raziskovati in predstaviti svoje ideje. Ljubljana: DDU Univerzum.
- Toporišič, J. (ur.). Slovenski pravopis. Pravila. Ljubljana: SAZU, DZS
- Gill, J. Essential mathematics for political and social research, Cambridge: Cambridge University Press, 2006
- Mackiw, G. Applications of abstract algebra, New York: John Wiley & Sons

Cilji:

- pripraviti študente za izdelavo doktorskega dela, s katerim bodo pokazali sposobnost uporabe teoretičnih znanj in v praksi pridobljenih izkušenj pri reševanju problemov, nakazanih v prijavi teme doktorskega dela
- v doktorski disertaciji naj bi študent pokazal sposobnost izbire in uporabe domače ter tuje strokovne literature in dodatnih virov za reševanje izbranega problema

Objectives:

- the intention is to prepare students for elaboration of their PhD thesis by which the student must prove his ability to use the theoretical knowledge and his practical work achieved experiences in resolving problems announced in the theme of his/her PhD thesis
- in his/her PhD thesis student should present the ability to choose and use his national and foreign professional scientific publications and additional sources in order to solve the chosen problem

Predvideni študijski rezultati:Znanje in razumevanje:

- poznavanje širšega strokovnega področja, na katero bo sodila bodoča doktorska disertacija
- formiranje specifičnega znanje ter razumevanje pojmovnika predvidenega doktorskega dela
- poudarek je na sposobnosti kandidata oblikovati koncept doktorske naloge ter metodološke pristopove za zajemanje, obdelovanje in prikazovanje podatkov

Prenesljive/ključne spretnosti in drugi atributi:

- strokovno zapisovanje in izražanje matematičnih vsebin
- obvladanje reševanja strokovnih problemov
- suvereno predstavljanje ključnih spoznanj in spretnost argumentiranja

Intended learning outcomes:Knowledge and understanding:

- the knowledge of the wider mathematical field to which the dissertation will belong
- the development of special knowledge and working out the dictionary (notation) for the subject of the future doctoral thesis
- emphasis will be on the student's ability to formulate the topic of the investigation and methodological approaches towards collecting, analysing and presenting the related data.

Transferable/Key Skills and other attributes:

- expressing mathematical contents in oral and written form
- ability to solve specific mathematical problems
- clear presentation of the results of research work and efficient argumentation

Metode poučevanja in učenja:

- konzultacije;
- priprava seminarja;
- samostojni študij.

Teaching and learning methods:

- consultations;
- seminar work;
- self-study.

Načini ocenjevanja:Način (pisni izpit, ustno izpraševanje, naloge, projekt):

- seminarsko predavanje;
- pisni izdelek.

Delež (v %) /
Weight (in %)**30 %**
70 %**Assessment methods:**Type (examination, oral, coursework, project):

- seminar talk;
- written work.