

Subject code	ECTS credits
MAT5008	6

Course title in Lithuanian

TIRIAMASIS DARBAS NR.1

Course title in English

RESEARCH PROJECT NO.1

Short course annotation in Lithuanian (up to 500 characters)

Tiriamajam darbui nr. 1 studentas pasirenka temą iš matematikos mokslinių bei taikomųjų tyrimų srities. Darbo tematiką siūlo fakulteto dėstytojai, turintys teisę vadovauti magistrantūros tiriamiesiems ir baigiamiesiems darbams. Tiriamųjų darbų temos turi atitikti magistrantūros darbams keliamus reikalavimus, spręsti aktualią grynosios matematikos ar matematinių metodų pritaikymo problemą. Semestro pabaigoje studentas pristato tiriamojo darbo rezultatus, pateikdamas ataskaitą. Darbo rezultatai pristatomi viešame gynime.

Short course annotation in English (up to 500 characters)

Research project No.1 is prepared in the first semester of master studies. Research problem, corresponding to the requirements of Master Thesis, is chosen from the scientific and applied research area of mathematics, from a list of problems suggested by the researchers of the Informatics Faculty. At the end of semester, the research results are presented in the form of a report, which shall contain the principal parts: introduction, theoretical part, analytical part, main conclusions and results, list of literature. The report is presented in the public defence.

Prerequisites for entering the course

Study subjects of Mathematics field bachelor study programme

Course aim

The goal of the research project is to acquaint with various mathematical problems for different applied areas, applying the theoretical knowledge acquired in the studying process, to learn to process and to present the collected facts.

Links between course outcomes, criteria of learning achievement evaluation, study methods and methods of learning achievement assessment

No	Course outcomes	Criteria of learning achievement evaluation	Study methods	Methods of learning achievement assessment
1.	Knowledge of different theoretical or practical mathematical problems.	Student demonstrates the knowledge of particular mathematical problem, demonstrates the ability to formulate task, present solution process, justify received results	Individual work, consulting	Project report and presentation, assessed by a qualification commission, formed by the Dean of the Faculty.
2.	Ability to collect data for the solution of particular problem.			
3.	Ability to analyse data of the particular problem.			
4.	Ability to make conclusions on theoretical or practical mathematical problem.			

Links between study programme outcomes and course outcomes

Study programme outcomes	Running number of course outcome			
	1	2	3	4
1. Deepen and expand general knowledge of mathematics and apply it in a new non-standard environment	+		+	
4. Identify, select and understand the state-of-the-art literature of mathematics and apply the gained knowledge to specific scientific and practical tasks	+		+	
6. Organize the process of research projects		+		+
7. Analyse, understand and use mathematical methods	+	+	+	

8. Transform heuristic arguments into mathematical language; prove the propositions by using known patterns	+	+	+	
12. Make decisions independently			+	+
13. Take moral responsibility for the results of work				+

Distribution of workload for students (contact and independent work hours)

Consultations	10 hours
Individual students work	148 hours
Project presentation	2 hours
Total:	160 hours

Structure of cumulative score and value of its constituent parts

Contents of the project report – 70%, public defence of the project report – 30 %.
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Recommended reference materials

Depends on the content of the project.
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Course programme designed by

Prof. dr. Ričardas Krikštolaitis
