

Applied Mathematics Master Program at the Department of Mathematics and Informatics, University of Novi Sad

The program of master studies in Applied Mathematics described here is a result of Tempus project CD JEP 17017-2002 "Mathematics Curricula for Technological Development" developed at the Department of Mathematics and Informatics at Faculty of Science University of Novi Sad. The scientific consortium of this project consists of Technical University of Dresden, University of Novi Sad, Department of Mathematics and Informatics, University of Milan and Lappeenranta University of Technology. Prof. Dr. Wojciech Okrasinski and Prof. Dr. M. Oberguggenberger are individual experts in this project.

The programme has two branches – Economath and Techomath and each student is free to choose one of them.

The list of courses is given below.

Master of Applied Mathematics – Economath

	Code	Course	WS	SS	e	ECTS
I year	EMZ01	Numerical Optimization	3+2+2		u	5
		Elective Course I				6
		Elective Course II				6
		Elective Course III				6
	EML05	Econometrics		2+1+1	u	3
	EML06	Modelling Seminar		2+0+1	u	3
	EML07	Elective Seminar		2+0+1	u	3
		Master Thesis	0+0+10	0+0+14		30
			26-30	26-28		62
II y.		Master Thesis	26	26		60
			26	26		60

Code	Elective courses I-III			
PMZ01	Analysis of algorithms	3+2+1		p
EMZ02	Finance	3+3+1		u
EMZ03	Financial Mathematics II	3+3+1		u
PMZ02	Information systems	2+1+2		pr
EMZ04	Mathematical Models in Economy	3+2+1		u
PMZ03	Operations Research	3+2+2		u
PMZ04	Optimization	3+2+1		u
PMZ05	Partial Differential Equations	3+3+1		u
PML01	Numerical Analysis II		2+1+3	u
PML02	Num. Methods in Linear Algebra II		2+1+3	u
PML03	Stochastic Analysis		3+2+1	u
EML01	Decision Theory		2+2+1	u
EML02	Insurance		2+2+0	u
EML03	Auditing		2+2+0	u

Student has to choose courses which she/he did not finish during undergraduate studies

Financial Mathematics II and PDEs are obligatory courses for undergraduate and master programme.

Elective Seminar: Practice in some company or courses from list fixed at the beginning of the school year.

Master of Applied Mathematics – Techomath

	Code	Course	WS	SS	e	ECTS
I year	TMZ01	Numerical Optimization	3+2+2		u	5
		Elective Course I				6
		Elective Course II				6
		Elective Course III				6
	TML05	Elective Course IV		2+1+1	u	3
	EML06	Modelling Seminar		2+0+1	u	3
	EML07	Elective Seminar		2+0+1	u	3
		Master Thesis	0+0+10	0+0+14		30
		26-30	26-28		62	
II y.		Master Thesis	26	26		60
			26	26		60

Code	Elective Course I,II,III			
PMZ01	Analysis of Algorithms		3+2+1	p
TMZ02	Fuzzy systems		2+2+1	u
TML01	Continual Modelling	Con.: B1Z11	2+2+2	u
TML02	Mathematical Methods in Science		2+2+1	u
TMZ03	Mathematical Models in Mechanics	Con.: B1L06	2+2+1	u
TML03	Mechanics		2+2+1	u
PML02	Num. Methods in Linear Algebra II	Con.: B1L10	2+1+3	u
PML01	Numerical Analysis II	Con.:B1Z08	2+1+3	u
PMZ03	Operations Research		3+3+2	u
PMZ04	Optimization		3+2+1	u
TML04	Digital Electronics		3+3+0	u
PMZ05	Partial Differential Equations		3+3+1	u
TMZ04	Applied Algebra		2+2+1	u
TML05	Information Theory and Coding		3+3+1	u
TML06	Theory of Fuzzy Sets		2+2+1	u
TML07	Introduction to Mechanics		2+2+2	u
PML03	Stochastic Analysis		3+2+1	u

Code	Elective Course IV			
TML08	Data Bases II	Con.: B1Z10	2+1+3	u
PMZ02	Information Systems		2+2+2	pr
TMZ05	Compiler Construction		2+2+1	u
TMZ06	Object Oriented Programming	Con.:C1L02	2+2+2	u
TMZ07	Operational Systems		2+2+3	u
TML09	Computer Networks		2+1+2	pr
TMZ08	Data Structures and Algorithms II	Con.:C1L02	2+1+2	u
TML10	Software Project Management		2+1+2	u
TMZ09	Artificial Intelligence		2+2+3	u

Student has to choose courses which she/he did not finish during undergraduate studies

PDEs, Stochastic Analysis and Introduction to Mechanics/ Digital electronics are obligatory courses for undergraduate and master programme.

Elective Seminar: Practice in some company or courses from list fixed at the beginning of the school year.

