

	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0191102	Programme related elective M1-M5 in R1		90	45	90			315	540	18	1st semester	yes
2.	0191103	Programme related elective at UL EF		15	15	15			165	210	7	1st semester	yes
3.	0191104	Open elective		30	15	15			90	150	5	1st semester	yes
4.	0079624	Workplace experience 1	Janez Bernik, Tomaž Košir	0	15	0	0	0	165	180	6	2nd semester	no
5.	0191106	Open elective			15				165	180	6	2nd semester	yes
6.	0079625	Master's thesis		0	0	0	0	0	540	540	18	2nd semester	no
		Total		135	105	120	0	0	1440	1800	60		

Year 1, Year 2, Electives M1 Analysis and mechanics

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0110287	Measure theory	Marko Kandić, Roman Drnovšek	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
2.	0110288	Introduction to functional analysis	Igor Klep, Peter Šemrl, Roman Drnovšek	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
3.	0110222	Functional analysis	Peter Šemrl, Roman Drnovšek	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
4.	0110223	Introduction to C^* algebras	Matej Brešar	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
5.	0110224	Operator theory	Marko Kandić, Peter Šemrl, Roman Drnovšek	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes

								of study					
1.	0110301	Commutative algebra	David Dolžan, Tomaž Košir	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
2.	0110302	Noncommutative algebra	Igor Klep, Jakob Cimprič, Matej Brešar	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
3.	0110236	Nonassociative algebra	Tomaž Košir	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
4.	0110237	Ordered algebraic structures	Jakob Cimprič, Karin Cvetko- Vah	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
5.	0110238	Theory of semigroups and groups	Jakob Cimprič, Primož Moravec, Primož Potočnik, Tomaž Košir	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
6.	0110239	Number theory	Tomaž Košir	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
7.	0110307	Combinatorics	Matjaž Konvalinka, Sandi Klavžar	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
8.	0110308	Graph theory	Arjana Žitnik, Primož Potočnik, Riste Škrekovski, Sandi Klavžar	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
9.	0110242	Cardinal arithmetic	Alexander Keith Simpson, Andrej Bauer	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
10.	0110243	Topics in discrete mathematics 1	Matjaž Konvalinka, Primož Potočnik, Riste Škrekovski, Sandi Klavžar	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes

11.	0110244	Topics in discrete mathematics 2	Primož Potočnik, Riste Škrekovski, Sandi Klavžar	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
12.	0110245	Applied discrete mathematics	Alen Orbanic, Primož Potočnik, Riste Škrekovski	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
13.	0110246	Logic	Andrej Bauer	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
14.	0190599	Topics in algebra	Igor Klep, Jakob Cimprič, Matej Brešar, Peter Šemrl, Primož Moravec	30	0	30	0	0	105	165	6	1st semester, 2nd semester	yes
Total				570	45	420	0	0	1470	2505	84		

Year 1, Year 2, Electives M3 Geometry and topology

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0110314	Analysis on manifolds	Franc Forstnerič, Janez Mrčun, Pavle Saksida	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
2.	0110248	Introduction to algebraic geometry	Tomaž Košir	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
3.	0110249	Convexity	Franc Forstnerič, Klemen Šivic	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
4.	0110317	Algebraic topology 1	Dušan Repovš, Janez Mrčun, Petar Pavešić, Sašo Strle	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
5.	0110251	Algebraic topology 2	Dušan Repovš, Janez Mrčun,	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes

			Petar Pavešić, Sašo Strle										
6.	0113423	Differential geometry	Janez Mrčun, Pavle Saksida, Sašo Strle	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
7.	0113424	Lie groups	Franc Forstnerič, Janez Mrčun, Pavle Saksida	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
8.	0110254	Riemann surfaces	Barbara Drinovec-Drnovšek, Franc Forstnerič, Miran Černe, Pavle Saksida	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
Total				315	45	240	0	0	840	1440	48		

Year 1, Year 2, Electives M4 Numerical mathematics

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0110255	Numerical integration and ordinary differential equations	Emil Žagar, Marjetka Knez	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
2.	0110256	Numerical solving of partial differential equations	Emil Žagar, Marjetka Knez	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
3.	0110257	Iterative numerical methods in linear algebra	Bor Plestenjak	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
4.	0109559	Computer aided (geometric) design	Emil Žagar, Jan Grošelj, Marjetka Knez	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes

5.	0110259	Numerical approximation and interpolation	Emil Žagar, Marjetka Knez	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
6.	0110260	Numerical methods for linear control systems	Bor Plestenjak	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
7.	0541615	Topics in numerical mathematics	Bor Plestenjak, Emil Žagar, Marjetka Knez	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
Total				240	75	210	0	0	735	1260	42		

Year 1, Year 2, Electives M5 probability, statistics and financial mathematics

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0110274	Statistics 2	Jaka Smrekar, Mihael Perman	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
2.	0079631	Bayesian statistics	Jaka Smrekar	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
3.	0079634	Econometrics	Mihael Perman	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
4.	0079671	Stochastic processes 2	Janez Bernik, Mihael Perman	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
5.	0079672	Stochastic processes 3	Mihael Perman, Oliver Dragičević	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
6.	0079626	Actuarial mathematics	Janez Bernik, Mihael Perman	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
7.	0079656	Modelling with stochastic processes	Janez Bernik	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
8.	0079644	Topics in game theory	Matjaž Konvalinka, Sergio Cabello Justo	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes

9.	0079640	Topics in financial mathematics 1	Tomaž Košir	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
10.	0079641	Topics in financial mathematics 2	Mihael Perman, Tomaž Košir	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
11.	0079664	Optimization in finance	Bor Plestenjak, Jaka Smrekar, Janez Bernik, Mihael Perman, Tomaž Košir	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
12.	0079686	Time series	Mihael Perman	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
13.	0079670	Riesz spaces in mathematical economics	Marko Kandić, Roman Drnovšek	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
14.	0079660	Numerical methods for financial mathematics	Jaka Smrekar, Janez Bernik, Marjetka Knez, Mihael Perman, Tomaž Košir	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
15.	0079635	Financial mathematics 3	Tomaž Košir	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
Total				465	210	450	0	0	1575	2700	90		

Year 1, Year 2, Electives R1 Computational mathematics

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0110261	Mathematics with computers	Andrej Bauer	15	30	30	0	0	105	180	6	1st semester, 2nd semester	yes
2.	0110262	Computability theory	Andrej Bauer	45	0	30	0	0	105	180	6	1st semester, 2nd semester	yes
3.	0110263	Computational complexity	Sergio Cabello Justo	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes

4.	0110264	Topics in mathematical foundations of computer science	Andrej Bauer, Sergio Cabello Justo	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
5.	0110332	Topics in optimization	Emil Žagar, Sergio Cabello Justo	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
6.	0110333	Optimization 2	Emil Žagar, Sergio Cabello Justo	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
7.	0110334	Data structures and algorithms 3	Sergio Cabello Justo	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes
Total				210	105	210	0	0	735	1260	42		

Year 2, Electives

				Contact hours									
University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective	
1. 0079260	Workplace experience 2	Matjaž Konvalinka, Primož Moravec	0	15	0	0	0	165	180	6	2nd semester	yes	
Total			0	15	0	0	0	165	180	6			

Year 1, Year 2, Electives

				Contact hours									
University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective	
1. 0110272	Mathematics in industry	George Mejak	0	30	0	0	0	150	180	6	1st semester, 2nd semester	yes	
2. 0191092	Advanced Machine Learning	Ljupčo Todorovski, Matija Pretnar	30	15	30	0	0	105	180	6	1st semester, 2nd semester	yes	

	Total	30	45	30	0	0	255	360	12	
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Students select electives from lists M1-M5:

- min. 5 subjects (30 ECTS) from M5
- min. 4 subjects (24 ECTS) from M1-M4 and R1

Exceptions are approved by the commission of department of Mathematics