MSc in Applied Mathematics (Regular training curriculum)
valid from 2023/2024 academic year

	Code	Course name	Responsible lecturer	1. lec	1. sem	1. lab	1. req	1. cr	2. lec	2. sem	2. lab	2. req	2. cr	3. lec	3. sem	3. lab	3. req	3. cr	4. lec	4. sem	4. lab	4. req	4. cr	Prerequisities	
		Theoretical foundations		**10**	**4**	**2**		**24**	**0**	**0**	**0**		**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**		**0**		
1	NMXLA1EMNF	Linear algebra	Dr. SZŐKE Magdolna	2	1	0	m	4																	
2	NMXAS1EMNF	Algebra and number theory	Dr. SZŐKE Magdolna	2	0	0	ex	4																	
3	NMXAN1EMNF	Analysis	Dr. VAJDA István	2	1	0	m	4																	
4	NMXGT1EMNF	Geometry and topology	Prof. Dr. NAGY Péter Tibor	2	1	0	ex	4																	
5	NMXVS1EMNF	Probability theory and mathematical statistics	Dr. KÁRÁSZ Péter	2	1	0	ex	4																	
6	NMXBM1EMNF	Introduction to MATLAB programming*	Dr. LÉKA Zoltán	0	0	2	m	4																	
		Professional core curriculum		**0**	**0**	**0**		**0**	**13**	**6**	**0**		**26**	**0**	**0**	**0**		**0**	**0**	**0**	**0**		**0**		
7	NMXAE1EMNF	Algorithm theory*	Dr. habil. HEGEDÜS Gábor						3	0	0	ex	4												
8	NMXDM1EMNF	Discrete mathematics	Dr. habil. HEGEDÜS Gábor						2	1	0	ex	4												
9	NSXIA1EMNF	Interpolation and approximation	Prof. Dr. GALÁNTAI Aurél						2	0	0	ex	4												
10	NMXDE1EMNF	Differential equations	Prof. Dr. TAKÁCS Márta						2	1	0	ex	4												
11	NMXHS1EMNF	Stochastic processes and applications	Dr. KÁRÁSZ Péter						2	2	0	ex	5												
12	NMXOM1EMNF	Optimization methods	Prof. Dr. TAKÁCS Márta						2	2	0	ex	5												
		Specialization		**0**	**0**	**0**		**0**	**2**	**0**	**0**		**4**	**8**	**0**	**8**		**20**	**7**	**0**	**4**		**14**		
13	NMXFA1EMNF	Fourier analysis and series	Prof. Dr. TAR József						2	0	0	ex	4											3	NMXAN1EMNF
14	NSXMS1EMNF	Engineering computational methods*	Prof. Dr. GALÁNTAI Aurél											2	0	2	ex	5						10	NMXDE1EMNF
15	NBXTS1EMNF	Multivariate statistical methods*	Dr. habil. FERENCI Tamás											2	0	2	ex	4						5	NMXVS1EMNF
16	NMXSC1EMNF	System and control theory	Prof. Dr. TAR József																2	0	2	ex	5	10	NMXDE1EMNF
17	NMXPD1EMNF	Partial differential equations	Prof. Dr. TAKÁCS Márta											2	0	2	ex	6						10	NMXDE1EMNF
18	NMXCC1EMNF	Cryptography and quantum cryptography	Prof. Dr. TAKÁCS Márta																2	0	2	ex	5	2	NMXAS1EMNF
19	NMXIK1EMNF	Information and coding theory	Prof. Dr. TAKÁCS Márta																3	0	0	ex	4	1	NMXLA1EMNF
20	NSXIPCEMNF	Image processing and computer graphics	Dr. habil. VÁMOSSY Zoltán											2	0	2	m	5						1	NMXLA1EMNF
		Physical Education		**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**												
21	OTTPH1EMNF	Physical Training I.	HIERVARTER Ákos	0	1	0	t	1																	
22	OTTPH2EMNF	Physical Training II.	HIERVARTER Ákos						0	1	0	t	1												
		Thesis work																**10**					**10**		
23	NDDDM1AMNF	Thesis work I.	Prof. Dr. KRISTÁLY Alexandru											0	0	0	m	10							
24	NDDDM2AMNF	Thesis work II.	Prof. Dr. KRISTÁLY Alexandru																0	0	0	m	10	23	NDDDM1AMNF
		Criteria subject		**0**	**1**	**0**		**0**																	
25	NDIPT1EMNF	Mentoring	SÁJEVICSNÉ Dr. habil. SÁPI Johanna	0	1	0	s	0																	
		Optional subjects						**5**					**0**					**0**					**5**		
26		Optional subject I.		4	0	0	m	5																	
27		Optional subject II.																	4	0	0	m	5		

			1.	2.	3.	4.
Number of requirements:			6	7	4	3
Exam (ex)			3	7	3	3
Mid-term grade (m)			3	0	1	0
Without specialization			10 / 5 / 2 / 0 / 30	15 / 7 / 0 / 0 / 31	8 / 0 / 8 / / 30	7 / 0 / 4 / / 29