

Curriculum table for the full-time MSc in Cyber Security Engineering valid from 01.09.2023																											
						Semesters																				Prerequisite	
	Code	Course name	Responsible	Weekly hours	Credits	1.					2.					3.					4.						Code
		Natural sciences and economics (5-10)		10	12	2	3	0		6	2	1	2		6	0	0	0		0	0	0	0		0		
1	NKXPM1EMNF	Project management and business development	Dr. Anikó Almási	4	5	2	2	0	m	5																	
2	NBXKR1EMNF	Cryptography and quantum cryptography*	Prof. Dr. Miklós Kozlovsky	4	5						2	0	2	m	5												
3	OTTPH1EMNF	Physical Training I.	Ákos Hiervarter	1	1	0	1	0	t	1																	
4	OTTPH2EMNF	Physical Training II.	Ákos Hiervarter	1	1						0	1	0	t	1												
		Professional core curriculum (30-60)		42	53	11	0	11		24	5	0	4		14	6	0	5		15	0	0	0		0		
5	NBXBK1EMNF	Introduction to cybersecurity	Dr. Valéria Póser	4	5	2	0	2	ex	5																	
6	NKXNT1EMNF	Network technologies	Dr. Eszter Balázsne Kail	4	4	2	0	2	ex	4																	
7	NSXPPDEMNF	Programming paradigms and data structures*	Prof. Dr. Sándor Szénási	5	5	3	0	2	ex	5																	
8	NKXAB1EMNF	Databases and Big Data technologies	Dr. habil. Rita Fleiner	4	5	2	0	2	m	5																	
9	NKXMO1EMNF	Modern Operational systems	Dr. habil. Róbert Lovas	5	5	2	0	3	ex	5																	
10	NKXHH1EMNF	Advanced network technologies and their security	Dr. Eszter Balázsne Kail	4	5						2	0	2	ex	5											6	NKXNT1EMNF
11	NBXRM1EMNF	Research Methodology*	Dr. György Eigner	2	4						1	0	1	m	4												
12	NBXKB1EMNF	Cyber security - Security awareness	Dr. Valéria Póser	3	5						2	0	1	m	5											5	NBXBK1EMNF
13	NBXIT1EMNF	IT compliance, audit and risk analysis	Dr. Valéria Póser	3	5											2	0	1	m	5						5	NBXBK1EMNF
14	NBXMS1EMNF	Modern server trends, hardening*	Dr. Valéria Póser	4	5											2	0	2	ex	5						9	NKXMO1EMNF
15	NBXFB1EMNF	Cloud services and their security	Dr. György Tamás Kálmán	4	5											2	0	2	ex	5						10	NKXHH1EMNF
		Differentiated professional knowledge (20-30)																									
		SOC Analyser Specialisation (SOC)		20	25	0	0	0		0	2	0	2		5	4	0	4		10	4	0	4		10		
16	NBXNF1EMNF	Open source SOC development I.	Dr. Anna Vörösné Bánáti-Baumann	4	5						2	0	2	m	5											6	NKXNT1EMNF
17	NBXNF2EMNF	Open source SOC development II.	Dr. Anna Vörösné Bánáti-Baumann	4	5											2	0	2	ex	5						16	NBXNF1EMNF
18	NKXMK1EMNF	AI-based solutions for cyber defence	Dr. Eszter Balázsne Kail	4	5											2	0	2	ex	5						7	NSXPPDEMNF
19	NKXSO1EMNF	SOAR - Security orchestration, automation and response	Dr. habil. Róbert Lovas	4	5																2	0	2	m	5	17	NBXNF2EMNF
20	NKXDF1EMNF	Digital forensics and threat hunting	Dr. Eszter Balázsne Kail	4	5																2	0	2	ex	5	18	NKXMK1EMNF
		Thesis		0	20	0	0	0		0	0	0	0		5	0	0	0		5	0	0	0		10		
21	NDDDMEEMNF	Thesis work II.	Dr. Valéria Póser		5									m	5												
22	NDDDMKEMNF	Thesis work II.	Dr. Valéria Póser		5														m	5						21	NDDDMEEMNF
23	NDDDMHEMNF	Thesis work III.	Dr. Valéria Póser		10																			m	10	22	NDDDMKEMNF
		Criteria subject		1	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0		0		
24	NDIPT1EMNF	Mentoring	Dr. habil. Johanna Sájevicsné Sági				1	0	s	0																	
		Optional subjects (min. 10 kredit)		8	10					0					0					0	4	0	4	é	10		
25		Optional subject I.																			2	0	2	m	5		
26		Optional subject II.																			2	0	2	m	5		

Number of requirements:							0					0					0					2		
Exam (ex)							0					0					0					0		
Mid-term mark (m)							0					0					0					2		
Without specialization:		60	95	13	3	11		30	7	1	6		25	6	0	5		20	4	0	4		20	95
with SOC specialization		80	120	13	3	11		30	9	1	8		30	10	0	9		30	8	0	8		30	120

Subjects of the final examination: Modern server trends, hardening and the relevant subject group of the specialisation
*e-learning blended