

Computer Science MSc (Cybersecurity specialization, EIT advanced cryptogragfy SPECTRO 2024)													
Compulsory subjects													
Code	Subject	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22fRMEG	Research methodology L+Pr.	1	2	0	2	XPG	5	1		1+2+0+2			
IPM-22fASTE	Advanced Software Technology L.	2	0	0	2	E	4	2			2+0+0+2		
IPM-22fDAAE	Design and analysis of algorithms L.	2	0	0	2	E	4	2			2+0+0+2		
	Intership						0	2-4					520 hours (13 week)
IPM-24fkbIMCSG	Introductory mathematics for Cybersecurity Specialisation	0	1	0	0	PG	1	1		0+1+0+0			
IPM-24fkbIOS1EG	Introduction to Offensive Security I.	1	1	0	2	XPG	4	1		1+1+0+2			
IPM-24fkbPETEG	Privacy enhancing technologies	1	1	0	2	XE	4	1		1+1+0+2			
IPM-24fkbSKCE	Symmetric key cryptography	2	0	0	1	E	2	1	IPM-24fkbSKCG (weak), IPM-24fkbIMCSG (weak)	2+0+0+1			
IPM-24fkbSKCG	Symmetric key cryptography	0	2	0	0	PG	2	1		0+2+0+0			
IPM-24fkbIDSE	Introduction to Data Security	2	0	0	2	E	4	2			2+0+0+2		
IPM-24fkbNSE	Network security	2	0	0	0	E	2	2			2+0+0+0		
IPM-24fkbPKCE	Public key cryptography	2	0	0	0	E	2	2	IPM-24fkbPKCG (weak)		2+0+0+0		
IPM-24fkbPKCG	Public key cryptography	0	2	0	0	PG	2	2	IPM-24fkbSKCE (strong)		0+2+0+0		
IPM-24fkbPTE	Penetration testing	2	0	0	1	E	3	3	IPM-24fkbPTG (weak)			2+0+0+1	
IPM-24fkbPTG	Penetration testing	0	2	0	1	PG	3	3	IPM-24fkbIOS1EG (weak)			0+2+0+1	

IPM-24fkbCRAE	Provably secure modular design of cryptographic protocols	2	0	0	0	E	2	3	IPM-24fkbCRAE (weak)			2+0+0+0	
IPM-24fkbCRAG	Provably secure modular design of cryptographic protocols	0	2	0	0	PG	2	3				0+2+0+0	
IPM-24fkbSMCE	Secure multiparty computation	2	0	0	2	E	4	3				2+0+0+2	
IPM-24fkbZKPAE	Zero-knowledge proofs and applications	2	0	0	2	E	4	3				2+0+0+2	
IPM-22fkbCRPE	Cryptographic protocols	2	0	0	1	E	3	3	IPM-22fkbCRPG (weak)			2+0+0+1	
IPM-22fkbCRPG	Cryptographic protocols	0	0	2	1	PG	3	3				0+0+2+1	
	Compulsory subjects credits						56			18	22	16	
	Compulsory elective subjects credits						28			12	8	8	
	Elective subjects						6	3				6+0+0	
IPM-24fTHCONS	Thesis consultation		5		10	PG	30	4					signature
	Summa credit in semester									30	30	30	30
	Summa credit						120						

Compulsory elective subjects													
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IPM-24fkbMFCE	Mathematical foundation of cryptocurrencies	2	0	0	2	E	4	1		2+0+0+2			
IPM-24fkbSCSE	Side-channel security	2	0	0	0	E	2	1,3	IPM-24fkbSCSG (weak)	2+0+0+0		2+0+0+0	
IPM-24fkbSCSG	Side-channel security	0	2	0	0	PG	2	1,3		0+2+0+0		0+2+0+0	
IPM-24fkbIQIE	Introduction to Quantum Information	2	0	0	0	E	2	1,3	IPM-24fkbIQIG (weak)	2+0+0+0		2+0+0+0	
IPM-24fkbIQIG	Introduction to Quantum Information	0	2	0	0	PG	2	1,3		0+2+0+0		0+2+0+0	
IPM-22fkbMLEG	Machine Learning	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22fkbODSEG	Numerical Methods for Optimization	2	0	2	2	XPG	6	2			2+0+2+2		

IPM-22fkbSQTE	Software quality and testing	2	0	0	1	E	3	2	IPM-22fkbSQTG (weak)		2+0+0+1		
IPM-22fkbSQTG	Software quality and testing	0	0	2	1	PG	3	2			0+0+2+1		
IPM-24fkbQCRE	Quantum Cryptography	2	0	0	0	E	2	2	IPM-24fkbQCRG (weak)		2+0+0+0		
IPM-24fkbQCRG	Quantum Cyrptography	0	2	0	0	PG	2	2	IPM-24fkbIQIE		0+2+0+0		
IPM-24fkbVASG	Vulnerability analysis seminar	0	2	0	2	PG	4	2			0+2+0+2		
IPM-24fkbPQCE	Post-quantum cryptography	2	0	0	2	E	4	3				2+0+0+2	
IPM-22fkbSCLAB1	Cyber Security Lab I.	0	0	0	4	PG	4	1,2,3		0+0+0+4	0+0+0+4	0+0+0+4	
IPM-22fkbSCLAB2	Cyber Security Lab II.	0	0	0	4	PG	6	1,2,3	IPM-22fkbSCLAB1 (weak)	0+0+0+4	0+0+0+4	0+0+0+4	

I&E modul													
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IPM-22fI&EBEG	I&E Basics	2	2	0	2	XPG	6	1		2+2+0+2			
IPM-22fI&EBDL1G	Business Development Lab I.	0	2	0	2	PG	4	1		0+2+0+2			
IPM-22fI&EBDL2G	Business Development Lab II.	0	2	0	2	PG	4	2			0+2+0+2		
IPM-22fI&EIAOEEG	Innosocial aspects of the entrepreneurship	2	2	0	2	XPG	6	2			2+2+0+2		
IPM-22fI&ETSSG	Thematic Innovation & Entrepreneurship PROJECT	1	1	0	2	XPG	4	2			1+1+0+2		
IPM-22fI&ESTEG	I&E Study	2	2	0	2	XPG	6	3				2+2+0+2	
	Summa credit in semester									30	30	30	30
	Summa credit						120						

PG: Practice Grade E: Exam Grade XPG: Lecture+Practice with Practical Grade XE: Lecture+Practice with Exam

