

**Master study programme "Computer Systems" 120 ECTS, part time intramural/ distance learning studies, duration  
- 2 years and 5 months**

Study Course	Name of the responsible academic staff member	Block	ECTS	Semester					
				0	0	1	2	3	4
<b>Study courses, providing the in-depth understanding of the latest achievements in the industry's theory and practice</b>									
<b>Compulsory study courses</b>			<b>45</b>	<b>30</b>	<b>30</b>	<b>15</b>			
Mathematics for System Analysts	E.Liepa	P	6	6					
Security and Privacy Compliance	A.Berežņojs	P	9	9					
System Approach to Computer System Design	R.Kopitovs	P	6	6					
Programming for Data Science	J.Čaiko	P	9	9					
Machine Learning Algorithms	A.Bondarenko	A	6			6			
NoSQL Database Technologies	J.Čaiko	A	6			6			
Latvian for Foreigners/ Business English	S.Plotā/ T.Lapaine	A	3			3			
Professional traineeship		T	30		30				
<b>Elective study courses</b>			<b>15</b>			<b>9</b>	<b>6</b>		
Big Data Architectures	J.Čaiko	B	6						
Data Warehouses	A.Bondarenko	B	6						
Cloud computing	J.Čaiko	B	3						
Blockchain Technology	V.Gopejenko	B	3						
Introduction to Quantum Computing	J.R.Kalniņš	B	3						
<b>Study courses on research work, innovation work, project work and management</b>									
<b>Compulsory study courses</b>			<b>9</b>				<b>9</b>		
Computer Experiments and Modelling Technologies	V.Gopejenko	A	6						
Philosophy of Science Development and Approaches to Research	O.Pozdņakova	A	3						
<b>Elective study courses</b>									
<b>Professional specialization study courses</b>		<b>C</b>	<b>12</b>				<b>6</b>	<b>6</b>	
<b>Information Security Management</b>									
Computer Security Principles and Technologies	A.Berežņojs	C1	3						
WEB Application Security Fundamentals	A.Berežņojs	C1	3						
Security of Computer Networks	A.Berežņojs	C1	3						
Secure Development and DevSecOps	A.Berežņojs	C1	3						
<b>Data Engineering</b>									
Databases and SQL	J.Čaiko	C2	3						
Business Intelligence	V.Gopejenko	C2	3						
Data Engineering	A.Bondarenko	C2	3						
Scalable and Reliable Systems Design	R.Djakons	C2	3						
<b>Machine Learning Engineering</b>									
Data Analysis	V.Gopejenko	C3	3						
Natural Language Processing using Deep Learning	A.Bondarenko	C3	3						
Image Analysis Using Deep Learning	R.Djakons	C3	3						
Advanced Topics in Deep Learning	A.Bondarenko	C3	3						
<b>Elective study courses C (Without Specialization)</b>									
Project Quality Management	A.Mrochko	C0	6						
High-level analytics and knowledge technologies	V.Gopejenko	C0	6						
Software Risk Analysis	A.Mrochko	C0	6						
Business Management*	V.Riashchenko	*	9						
Environment, Labour and Civil Protection*	V.Djakona	*	3						
<b>Qualification traineeship</b>	V.Gopejenko	T	<b>9</b>					9	
<b>Master's thesis</b>		M	<b>30</b>					6	24
<b>Total:</b>			<b>120</b>	<b>30</b>	<b>24</b>	<b>21</b>	<b>21</b>	<b>24</b>	

\*if this study course has not been mastered at previous levels