National Research University Higher School of Economics (HSE)

Curriculum

Field of study 09.03.01 Information Science and Computation Technology

Educational Programme "Information Science and Computation Technology"

Specializations: "Automated systems", "Computer Systems and Networks", "Elements and devices of embedded systems", "Information and analytical Systems"

Implementing unit: Tikhonov Moscow Institute of Electronics and Mathematics, HSE - Moscow

3 rd, 2024/2025 academic year

Length of Programme: 4 years
Years of Study: 2022/2023 - 2025/2026
Mode of Study: Full Time
Degree: Bachelor's degree

Block Code	Course	Subject type	Department	Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				Additional Information
							1	2	3	4	
	Degree Progamme			**60,00**	**2 280**	**790**	**154**	**218**	**228**	**190**	
	Data Culture			**4,00**	**152**	**10**		**2**	**6**	**2**	
1	External Examinations on Digital Skills. Final Level	C	отдел развития цифровых компетенций			2		2A			
2	Data Science, AI and Generative Models Independent Test. Intermediate	C	отдел развития цифровых компетенций	1,00	38	2				2A	Online Course
3	Programming of Web Services and Embedded Systems	C	School of Computer Engineering	3,00	114	6			6A		Online Course, Foreign language
	Major			**34,00**	**1 292**	**594**	**106**	**158**	**182**	**148**	
	Core Professional Block (Major)			**16,00**	**608**	**284**	**98**	**150**	**36**		
1	Computer Systems and Computer Networks	C	School of Computer Engineering	3,00	114	76	36A	40A			
2	Operating Systems	C	School of Computer Engineering	3,00	114	60	30	30A			Online Course
3	Basics of metrology	C	School of Electronic Engineering	3,00	114	30		30A			
4	Circuit Engineering	C	School of Computer Engineering	4,00	152	92	42A	50A			Online Course
5	Electronics	C	School of Electronic Engineering	3,00	114	26	26A				
	Elective Professional Block (Major)			**18,00**	**684**	**310**	**8**	**8**	**146**	**148**	
	Дисциплины по выбору ОП			**3,00**	**114**	**70**			**36**	**34**	

№	Course		Department								
1	Automation of Design Works	C	School of Computer Engineering	3,00	114	70			36	34A	
	Научно-исследовательский и проектный семинар			**6,00**	**228**	**72**	**8**	**8**	**28**	**28**	
1	Project Seminar "Programming Tools and Technologies"	C	School of Computer Engineering	3,00	114	40			20	20A	
2	Project Seminar "Fundamentals of Production Technology and Machine Learning"	C	School of Computer Engineering	3,00	114	32	8	8A	8	8A	
	Специальные дисциплины блока направления			**9,00**	**342**	**168**			**82**	**86**	
	Elective Courses 3			**9,00**	**342**	**168**			**82**	**86**	
1	Intelligent Data Processing	C	School of Computer Engineering	5,00	190	82			40	42A	
2	Design of the Systems on a Chip	C	School of Computer Engineering	4,00	152	86			42	44A	
	Elective Courses 1			**9,00**	**342**	**168**			**82**	**86**	
1	Computer Network Design	C	School of Computer Engineering	5,00	190	86			42	44A	
2	Network Video Technologies	C	School of Computer Engineering	4,00	152	82			40	42A	
	Corporate information and analytical systems			**9,00**	**342**	**168**			**82**	**86**	
1	Corporate Information-Analytical Systems	C	Joint Department of Data Analysis Systems with JSC EC-leasing	4,00	152	86			42	44A	
2	Corporate Data Warehouses. Data Integration Methods	C	Joint Department of Data Analysis Systems with JSC EC-leasing	5,00	190	82			40	42A	
	Elective Courses 2			**9,00**	**342**	**168**			**82**	**86**	
1	Microcontroller Systems	C	School of Computer Engineering	5,00	190	86			42	44A	
2	Functional Units of Control Systems and Components	C	School of Computer Engineering	4,00	152	82			40	42A	
	Minor			**10,00**	**380**	**152**	**38**	**38**	**38**	**38**	
1	Minor	C		10,00	380	152	38	38A	38	38A	
	English					**2**			**2**		
	Examinations					**2**			**2**		
1	Independent English Exam	C	School of Foreign Languages			2			2A		Foreign language
	General Courses			**4,00**	**152**	**30**	**10**	**20**			
	Optional General Courses			**4,00**	**152**	**30**	**10**	**20**			
1	Legal Literacy	C	департамент теории права и сравнительного правоведения	4,00	152	30	10	20A			Online Course
	Internship			**8,00**	**304**	**2**				**2**	
	Project Internship			**5,00**	**190**	**2**				**2**	
1	Research or Applied Project	C		5,00	190	2				2A	
	Professional Internship			**3,00**	**114**						
1	Work Experience Internship	C		3,00	114						

Curriculum agreed:

Academic Supervisor	POLESSKIY S.N.	01.03.2024
Dean	KROUK E.A.	12.03.2024
Head of Centre for Educational Model Design	LEPESHKIN I.A.	18.04.2024

* Subject type:

Compulsory course	C
Elective course	E
Optional course	O