

Length of Programme: 2 years

Mode of Study: Full Time Degree: Master's degree / MBA

Years of Study: 2022/2023 - 2023/2024

National Research University Higher School of Economics (HSE)

Curriculum

Field of study 09.04.01 Information Science and Computation Technology

Educational Programme "Computer Systems and Networks"
Trajectories: "Computer Networks", "Computing Systems and
Complexes", "Highload Systems and Code Optimization",
"Information - Analytical Systems"

Implementing unit: Tikhonov Moscow Institute of Electronics and Mathematics, HSE - Moscow
2 nd, 2023/2024 academic year

APPROVED

17.03.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

						Al	location of C	Contact Hour			
Block Code	Course	Subject type	Department	Credits	Total Academic Hours	Contact Hours	1	2	3	4	Additional Information
	Degree Programme			60,00	2 280	224	78	78	12		
	Highload Systems and Code Optimization (Applied track)				2 280	296	96	102	94	4	
	Major			24,00	912	228	76	80	72		
	Обязательные дисциплины прогр	раммы		24,00	912	228	76	80	72		
1	IT Product Management	С	School of Computer Engineering	6,00	228	48	24	24A			
2	Operating Systems	С	School of Computer Engineering	6,00	228	48		24	24A		
3	Industrial Programming in C/C++	С	School of Computer Engineering	3,00	114	48			48A		
4	Advanced Programming in Python	С	Department of Applied Mathematics	6,00	228	60	28	32A			
5	IT-Projects and IT-Processes Management	С	School of Computer Engineering	3,00	114	24	24A				
	Final State Certification (FSC)			3,00	114	2				2	
1	Final Qualification Paper	С		3,00	114	2				2A	
	Key Seminars			12,00	456	58	18	20	20		
1	Highload systems and code optimization	С	School of Computer Engineering	3,00	114	22	6A	8	8A		
2	Project Seminar	С	School of Computer Engineering	9,00	342	36	12	12	12A		
	Magolego	6,00	228								
1	All-university Pool MAGOLEGO Courses	E		6,00	228						

	Internship	15,00	570	8	2	2	2	2			
	Research Internship				342	2				2	
1	Graduation Thesis	С		9,00 9,00	342	2				2	
	Project Internship		•	2,00	76	6	2	2	2		
1		E		2,00	76	6	2	2	2A		
-	Professional Internship			4,00	152		_	_			
1	Graduation Internship	С	T	4,00	152						
1	Computing Systems and Complexes (track)	60,00	2 280	230	122	98	6	4	
	Major				798	168	96	72			
	Components of the Field of Study				114	24	24	'-			
	•	IC	School of Computer	3,00 3,00	114	24	24A				
1	Management		Engineering	0,00	''-	2-7	27/1				
•	Elective Courses			18,00	684	144	72	72			
	The Architecture of the Computing	F	School of Computer	6,00	228	34	12	22A			
1	Cores of Modern Microprocessors	_	Engineering	,,,,,		•		`			
	·	E	School of Computer	6,00	228	48	24	24A			
2	Systems		Engineering .								
		E	School of Computer	6,00	228	48	24	24A			
3	Computation		Engineering								
		E	School of Computer	6,00	228	48	24	24A			
	the Operating Systems		Engineering								
4	Development										
	Final State Certification (FSC)	ı		3,00	114	2				2	
1	· · · · · · · · · · · · · · · · · · ·	С		3,00	114	2				2A	
	Key Seminars			12,00	456	56	26	26	4		
	Research Seminar	С	School of Computer	6,00	228	28	14	14A			
1		_	Engineering								
	Project Seminar	С	School of Computer	3,00	114	16	8	8A			
2	Mandada Canainan II Canandina	С	Engineering School of Computer	2.00	114	12	4	4	4.0		
3	Mentor's Seminar "Computing Systems and Complexes"	C	Engineering	3,00	114	12	4	4	4A		
3	Magolego		Linginieering	9,00	342						
		С		9,00	342						
1	Courses			3,00	342						
	Internship			15,00	570	4			2	2	
	Research Internship			9,00	342	2			_	2	
1	•	С	T	9,00	342	2				2	
	Professional Internship	-		6,00	228	2			2		
1	•	С		6,00	228	2			2A		
•	Information - Analytical Systems (Gen		;k)	60,00	2 280	230	122	98	6	4	
	Major		,	21,00	798	168	96	72			
	Components of the Field of Study			3,00	114	24	24	12			
		С	School of Computer	3,00	114	24	24A				
1	Management		Engineering	3,50	''-	2-7	27/1				
•	Elective Courses			18,00	684	144	72	72			
		E	School of Computer	6,00	228	48	24	24A			
1	and Computer Networks	_	Engineering	3,55		.5	- 1	-"\			
	'		1 5 5								

2	Methodology and Technology of Development of Corporate Trainees of Expert Systems	Е	Joint Department of Data Analysis Systems with JSC EC-leasing	6,00	228	48	24	24A			
3	Methods and Technologies for Working with Corporate Structured Data	E	Joint Department of Data Analysis Systems with JSC EC-leasing	6,00	228	48	24	24A			
4	Data Analysis Applications in the Development of Analytical Information Systems	E	Joint Department of Data Analysis Systems with JSC EC-leasing	6,00	228	48	24	24A			
	Final State Certification (FSC)			3,00	114	2				2	
1	` '	С		3,00	114	2				2A	
	Key Seminars			12,00	456	56	26	26	4		
1	Research Seminar	С	School of Computer Engineering	6,00	228	28	14	14A			
2	Project Seminar	С	School of Computer Engineering	3,00	114	16	8	A8			
3	Mentor's seminar "Analytical Information Systems"	С	School of Computer Engineering	3,00	114	12	4	4	4A		
	Magolego			9,00	342						
1	All-university Pool MAGOLEGO Courses	С		9,00	342				_	_	
	Internship			15,00	570	4			2	2	
	Research Internship	1-		9,00	342	2				2	
1		С		9,00	342	2				2	
	Professional Internship	l a		6,00	228	2			2		
1	<u> </u>	С		6,00	228	2	400	20	2A		
	Computer Networks (General track)			60,00	2 280	230	122	98 72	6	4	
	Major Components of the Field of Study			21,00 3,00	798 114	168 24	96 24	12			
	IT-Projects and IT-Processes	lc	School of Computer	3,00	114	24	24A				
1	Management Elective Courses		Engineering		684		72	72			
		I-	School of Computer	18,00	228	144 48	24	24A			
1	Security of Computer Systems and Computer Networks Wireless Networks and Portable	E	Engineering School of Computer	6,00	228	48	24	24A 24A			
2	Systems Neural Networks: Tasks and	E	Engineering	6,00							
3	Computation		School of Computer Engineering	6,00	228	48	24	24A			
4	Management and Monitoring of Computer Networks	E	School of Computer Engineering	6,00	228	48	24	24A			
	Final State Certification (FSC)			3,00	114	2				2	
1	·	С		3,00	114	2				2A	
	Key Seminars	1_		12,00	456	56	26	26	4		
1	Research Seminar	С	School of Computer Engineering	6,00	228	28	14	14A			
2	Project Seminar	С	School of Computer Engineering	3,00	114	16	8	A8			
3	Mentor's Seminar "Computer Networks"	С	School of Computer Engineering	3,00	114	12	4	4	4A		

	Magolego				342					
	All-university Pool MAGOLEGO	С		9,00	342					
1	Courses									
	Internship				570	4		2	2	
	Research Internship				342	2			2	
1	Graduation Thesis	С		9,00	342	2			2	
	Professional Internship			6,00	228	2		2		
1	Work Experience Internship	С		6,00	228	2		2A		

Curriculum agreed:

Academic Supervisor VISHNEKOV A.V. 22.02.2023

Dean KROUK E.A. 24.02.2023

Head of Centre for

Educational Model Design LEPESHKIN I.A. 10.03.2023

* Subject type:

Compulsory course C Elective course E