



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.03.04 Applied Mathematics

Educational Programme "Applied Mathematics"

Specializations: "Applied methods of stochastic analysis",
"Mathematical and computer methods for modern technologies",
"Mathematical modelling, control and information processing"

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

3 rd, 2023/2024 academic year

APPROVED

03.05.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2021/2022 - 2024/2025

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 Programme				60,00	2 280	803	166	166	221	250	
Data Culture				3,00	114	42				42	
1	Databases	C	Department of Applied Mathematics	3,00	114	40				40A	
2	Independent Programming Test. Advanced Level	C	отдел развития цифровых компетенций			2				2A	Online Course
Major				39,00	1 482	604	128	128	180	168	
Core Professional Block (Major)				24,00	912	434	120	120	116	78	
Subject Areas				24,00	912	434	120	120	116	78	
Algorithmisation				8,00	304	130	28	28	36	38	
1	Operating Systems	C	Department of Applied Mathematics	4,00	152	56	28A	28A			
2	Numerical Methods	C	Department of Applied Mathematics	4,00	152	74			36	38A	Online Course, Foreign language
Real, Complex and Functional Analysis				11,00	418	208	64	64	40	40	
1	Optimization Methods	C	Department of Applied Mathematics	4,00	152	72	36	36A			
2	Equations of Mathematical Physics	C	Department of Applied Mathematics	4,00	152	80			40	40A	
3	Functional Analysis	C	Department of Applied Mathematics	3,00	114	56	28	28A			
Probability Theory and Mathematical Statistics				5,00	190	96	28	28	40		
1	Theory of Stochastic Processes	C	Department of Applied Mathematics	5,00	190	96	28	28A	40A		
Elective Professional Block (Major)				15,00	570	170	8	8	64	90	

	Блок дисциплин по выбору			4,00	152	80				80	
	"Математические и компьютерные методы для современных технологий"			4,00	152	80				80	
1	Elective Courses	E		4,00	152	80				80A	
	"Математическое моделирование, управление и обработка информации"			4,00	152	80				80	
1	Elective Courses	E		4,00	152	80				80A	
	"Прикладные методы стохастического анализа"			4,00	152	80				80	
1	Elective Courses	E		4,00	152	80				80A	
	Дисциплина по выбору			4,00	152	40				40	
1	Elective Courses	E		4,00	152	40				40A	
	Дисциплины по выбору ОП						8	8	8	10	
1	Computer Practicum 3	C	Department of Applied Mathematics	4,00	152	34	8	8A	8	10A	
	Научно-исследовательский/Проектный семинар			3,00	114	16				16	
1	International Research and Development Projects	C	Department of Applied Mathematics	3,00	114	16				16A	Foreign language
	Minor			10,00	380	152	38	38	38	38	
1	Minor	C		10,00	380	152	38	38A	38	38A	
	English Examinations						3			3	
1	Independent English Exam	C	School of Foreign Languages				3			3A	Foreign language
	Internship			8,00	304	2				2	
	Project Internship			5,00	190	2				2	
1	Project	C		5,00	190	2				2A	
	Professional Internship			3,00	114						
1	Work Experience Internship	C		3,00	114						

Curriculum agreed:

Academic Supervisor	Presnova A.P.	26.04.2023
Dean	KROUK E.A.	26.04.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	28.04.2023

* Subject type:

Compulsory course
Elective course
Optional course

C
E
O