National Research University Higher School of Economics (HSE)

Curriculum
Field of study 01.03.04 Applied Mathematics
Educational Programme "Applied Mathematics"
Specialization: "Applied methods of stochastic analysis",
"Mathematical and computer methods for modern technologies",
"Mathematical modelling, control and information processing"
Tikhonov Moscow Institute of Electronics and Mathematics,
HSE - Moscow
1 st, 2021/2022 academic year

Length of Programme: 4 years
Years of Study: 2021/2022 - 2024/2025
Mode of Study: Full Time
Degree: Bachelor's degree

Number of Students: 150
Number of Groups: 5

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**	**2 584**	**1 315**	**256**	**266**	**407**	**386**	
	Data Culture					**3**			**3**		
1	Independent Digital Competence Assessment. Digital Literacy	C	центр поддержки и мониторинга образовательных программ			3			3A		
	Major			**47**	**1 786**	**926**	**158**	**174**	**308**	**286**	
	Core Professional Block (Major)			**44**	**1 672**	**910**	**158**	**174**	**302**	**276**	
	Subject Areas			**44**	**1 672**	**910**	**158**	**174**	**302**	**276**	
	Natural Sciences and Engineering			**7**	**266**	**136**			**70**	**66**	
1	Physics	C	School of Electronic Engineering	7	266	136			70A	66A	
	Algebra and Discrete Mathematics			**8**	**304**	**160**	**36**	**44**	**40**	**40**	
1	Algebra	C	Department of Applied Mathematics	4	152	80	36	44A			
2	Discrete Mathematics	C	Department of Applied Mathematics	4	152	80			40	40A	
	Real, Complex and Functional Analysis			**13**	**494**	**280**	**56**	**56**	**88**	**80**	
1	Calculus	C	Department of Applied Mathematics	13	494	280	56	56A	88	80A	
2	Calculus	C									
	Linear Algebra and Analytical Geometry			**10**	**380**	**204**	**38**	**46**	**60**	**60**	
1	Linear Algebra and Analytical Geometry	C	Department of Applied Mathematics	10	380	204	38	46A	60	60A	
	Programming			**6**	**228**	**130**	**28**	**28**	**44**	**30**	

#	Course	Type	Department								Notes
1	Algorithmization and Programming	C	Department of Applied Mathematics	6	228	130	28	28A	44	30A	
	Elective Professional Block (Major)			**3**	**114**	**16**			**6**	**10**	
	Научно-исследовательский/Проектный семинар			**3**	**114**	**16**			**6**	**10**	
1	Career-oriented Seminar "Introduction to Profession"	C	Department of Applied Mathematics	3	114	16			6	10A	
	English				**304**	**146**	**24**	**32**	**44**	**46**	
	Optional Courses				**304**	**144**	**24**	**32**	**44**	**44**	
1	English	O		8	304	144	24	32A	44	44A	Foreign language, Credits only to the cumulative rating
	Examinations					**2**				**2**	
1	English Language Integrative Exam	C	School of Foreign Languages			2				2A	Foreign language
	General Courses			**5**	**190**	**192**	**68**	**52**	**36**	**36**	
	Optional General Courses			**4**	**152**	**30**	**14**	**16**			
1	History	C	Department of Humanities	4	152	30	14	16A			Online Course
	Core General Courses			**1**	**38**	**162**	**54**	**36**	**36**	**36**	
1	Safe Living Basics	C	центр поддержки студенческих инициатив	1	38	18	18A				Online Course
2	Physical Training	C	Department of Physical Training			144	36	36	36	36A	
	Internship			**8**	**304**	**48**	**6**	**8**	**16**	**18**	
	Project Internship			**8**	**304**	**48**	**6**	**8**	**16**	**18**	
1	"Python in science and engineering" Computer practice	C	Department of Applied Mathematics	3	114	12			6	6A	Online Course
2	Computer Practicum 1	C	Department of Applied Mathematics	3	114	34	6	8	10	10A	
3	Проект 1 курс	E		2	76	2				2A	

Academic Supervisor   BUROVSKIY E.A.   30.03.2021

Dean   KROUK E.A.   31.03.2021

Head of Degree Programmes Development Office   MAMONOVA M.A.   30.04.2021

* Subject type:

Compulsory course	C
Elective course	E
Optional course	O