Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Ливанов Дмитрий Викторович
Должность: Ректор
Дата подписания: 09.10.2025 10:56:50
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Ministry of Science and Higher Education of the Russian Federation
The Federal State Autonomous Educational Institution of Higher Education
"Moscow Institute of Physics and Technology (National Research University)"

ACADEMIC PLAN

Qualification Master

Year of enrollment 2024

Statutory duration of a study course 2 years

APPROVED
Vice Rector for Academic Affairs

L.S. A. A. Voronov

Domain of study: 01.04.02 - Applied Mathematics and Informatics
Orientation (specialty): Advanced Methods of Modern Combinatorics/Продвинутые методы современной комбинаторики
Phystech School of Applied Mathematics and Informatics
Chair of Discrete Mathematics

AGREED
Head of the Phystech School of Applied Mathematics and Informatics

A. M. Raygorodskiy

Specialty: Advanced Combinatorics/Продвинутая комбинаторика

№ in order	Name of disciplines, practices, State Final Examination	Form of final control by semesters: Examinations 1	2	3	4	Graded test ("-" - simple) 1	2	3	4	State Examination	Hours: Laboratory classes	of them: Total classroom sessions	Lections	Laboratory classes	Practical lessons, seminars, exercises, etc.	Practice	Independent study	Hours for preparation and examinations	Coursework and test papers	hours in week: Distribution by courses and semesters: 1 course: 1 sem. 15 weeks: lect.	lab.	sem	2 sem. 15 weeks: lect.	lab.	sem	2 course: 3 sem. 15 weeks: lect.	лб.	sem	4 sem. 15 weeks: lect.	lab.	sem	TOTAL HOURS	Credit points: Total	Basic	Elective
1	2	3				4				5	6	7	8	9	10	11	12	13	14	15			16			17			18			19	20	21	22
M.1	**Courses (Modules)/Дисциплины (модули)**										**1 920**	**1 065**	**450**		**615**		**855**	**330**	**10**													2 250	50	9	41
M.1.1	**Foreign Languages/Иностранные языки**										**180**	**120**			**120**		**60**		**4**													180	4	4	
						-1					**90**	**60**			**60**		**30**		**2**			4										90	2	2	
							2				**90**	**60**			**60**		**30**		**2**						4							90	2	2	
	Humanitarian and Social Cycle/Гуманитарный и социальный цикл										**165**	**60**	**60**				**105**	**60**	**4**													225	5	5	
M.1.2	(N)ever the Same Phystech: History and Culture of MIPT from Ancient Times to the Present Day/(Не) тот Физтех: история и культура МФТИ с незапамятных времен до наших дней	1									**60**	**30**	**30**				**30**	**30**	**2**	2												90	2	2	
M.1.3	Everyday Economic Philosophy: A Simple View on (Un)Complicated Issues/Экономическая философия на каждый день: просто о (не)сложном		2								**105**	**30**	**30**				**75**	**30**	**2**				2									135	3	3	
	Core science/Профильные дисциплины										**1 530**	**870**	**390**		**480**		**660**	**270**	**2**													1 800	40		40
M.1.B.1	Discrete Structures/Дискретные структуры	1									**105**	**60**	**30**		**30**		**45**	**30**		2		2										135	3		3
M.1.B.2	Theory of Probability/Теория вероятностей					1					**90**	**60**	**30**		**30**		**30**			2		2										90	2		2
M.1.B.3	Linear Algebra/Линейная алгебра					1					**90**	**60**	**30**		**30**		**30**			2		2										90	2		2
M.1.B.4	Introduction to Discrete Geometry/Введение в дискретную геометрию										**195**	**120**	**60**		**60**		**75**	**30**														225	5		5
						1					**90**	**60**	**30**		**30**		**30**			2		2										90	2		2
			2								**105**	**60**	**30**		**30**		**45**	**30**					2		2							135	3		3
M.1.B.5	Extremal Combinatorics/Экстремальная комбинаторика		2								**105**	**45**	**15**		**30**		**60**	**30**	**2**				1		2							135	3		3
M.1.B.6	Random Graphs. Part 1/Случайные графы. Часть 1						2				**135**	**90**	**45**		**45**		**45**						3		3							135	3		3
M.1.B.7	Random Graphs. Part 2/Случайные графы. Часть 2			3							**150**	**75**	**45**		**30**		**75**	**30**								3		2				180	4		4
M.1.B.8	Advanced Graph Theory/Современная теория графов		2								**105**	**60**	**30**		**30**		**45**	**30**					2		2							135	3		3
M.1.B.9	Matrix Algebra Methods and Applications to Computer Science and Engineering/Методы матричной алгебры и приложения к информатике и инженерии		2								**105**	**60**	**15**		**45**		**45**	**30**					1		3							135	3		3
M.1.B.10	Game Theory/Теория игр			3							**150**	**75**	**30**		**45**		**75**	**30**								2		3				180	4		4
M.1.B.11	Additive Combinatorics/Аддитивная комбинаторика			3							**105**	**60**	**15**		**45**		**45**	**30**								1		3				135	3		3
M.1.B.12	Complex Networks/Сложные сети							3			**90**	**45**	**15**		**30**		**45**									1		2				90	2		2
M.1.B.13	Applied Discrete Optimization/Прикладная дискретная оптимизация			3							**105**	**60**	**30**		**30**		**45**	**30**								2		2				135	3		3

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1	2	3				4				5	6	7	8	9	10	11	12	13	14	15			16			17			18			19	20	21	22
M.1.B.14	Scientific Workshop: Modern Topics in Applied Mathematics and Computer Science/Научный семинар: Современные проблемы прикладной математики и информатики					1					**45**	**15**			**15**		**30**					1											45	1		1
M.2	**Practice/Практика**										**2 805**					**2 805**		**30**															2 835	63	51	12
M.2.1	**Educational Practice/Учебная практика**										**540**					**540**																	540	12		12
M.2.1.B.1	Introductory Practical Training/Ознакомительная практика					-1					**540**					**540**																	540	12		12
M.2.2	**Industrial Practice/Производственная практика**										**2 265**					**2 265**		**30**															2 295	51	51	
M.2.2.1	Personal Research Project/Научно-исследовательская работа										**2 265**					**2 265**		**30**															2 295	51	51	
							2				**585**					**585**																	585	13	13	
				3							**645**					**645**		**30**															675	15	15	
									4		**1 035**					**1 035**																	1 035	23	23	
M.3	**State Final Certification/Государственная итоговая аттестация**										**285**						**285**	**30**															315	7	7	
M.3.1	Performance of and Defence of Graduation Thesis/Выполнение и защита выпускной квалификационной работы				4					4	**285**						**285**	**30**															315	7	7	

TOTAL:		Number of examinations and pass/fail tests: Examinations				Pass/Fail tests					Distribution of hours by type of lesson									Distribution of classroom hours per week by semester				Total hours	Total number of credits		
	Fixed (wtihout State Final Examination)	2	5	5		6	3	1	1	Obl.	5 010	1 065	450		615	2 805	1 140	390	10	23	27	21		5 400	120	67	53
	Extracurriculars									ECs.																	
	State Final Examination				1																						

Distribution of hours of contact work by years and semesters				Total hours
856		404		1 260
383	473	370	34	

Distribution of credits by years and semesters			
59		61	
26	33	31	30

Head of Academic Management Office **I. R. Garayshina**