Документ подписан простой электронной подписью
Информация о владельце:
ФИО: Ливанов Дмитрий Викторович
Должность: Ректор
Дата подписания: 08.11.2023 09:37:19
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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)"

A C A D E M I C P L A N

Qualification Bachelor

Year of enrollment 2023

Statutory duration of a study course 4 years

APPROVED
Vice Rector for Academic Affairs
A. A. Voronov

Domain of study: 01.03.02 - Applied Mathematics and Informatics
Orientation (specialty): Computer Science/Информатика
Phystech School of Applied Mathematics and Informatics

AGREED
Head of the Phystech School of Applied Mathematics and Informatics
A. M. Raygorodskiy

№ in order	Name of disciplines, practices, State Final Examination	Form of final control by semesters: Examinations 1	2	3	4	5	6	7	8	Graded test ("-" - simple) 1	2	3	4	5	6	7	8	State Examination	Hours: Total for education	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 lec	lab	sem	1 course, 2 sem. 15 weeks lec	lab	sem	2 course, 3 sem. 15 weeks lec	lab	sem	2 course, 4 sem. 15 weeks lec	lab	sem	3 course, 5 sem. 15 weeks lec	lab	sem	3 course, 6 sem. 15 weeks lec	lab	sem	4 course, 7 sem. 15 weeks lec	lab	sem	4 course, 8 sem. 15 weeks lec	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			23	24	25	26
Б.1	**Courses (Modules)/Дисциплины (модули)**																		**8 670**	**3 825**	**1 440**	**540**	**1 845**		**4 845**	**480**	**57**																										9 150	196	119	77
Б.1.1	Basics of Russian State/Основы российской государственности										-2								**90**	**60**	**30**		**30**		**30**		**2**				2		2																				90	2	2	
Б.1.2	History of Russia/История России																		**180**	**60**	**60**				**120**		**4**																										180	4	4	
										-1									**90**	**30**	**30**				**60**		**2**	2																							90	2	2	
											-2								**90**	**30**	**30**				**60**		**2**				2																				90	2	2	
Б.1.3	Philosophy/Философия																8		**90**	**30**	**30**				**60**																					2			90	2	2	
Б.1.4	**Foreign Languages/Иностранные языки**																		**735**	**480**			**480**		**255**	**30**	**16**																								765	17	17	
										-1									**90**	**60**			**60**		**30**		**2**			4																				90	2	2	
											2								**90**	**60**			**60**		**30**		**2**					4																		90	2	2	
												-3							**90**	**60**			**60**		**30**		**2**							4																90	2	2	
													4						**90**	**60**			**60**		**30**		**2**									4														90	2	2	
														-5					**90**	**60**			**60**		**30**		**2**											4												90	2	2	
															6				**90**	**60**			**60**		**30**		**2**														4									90	2	2	
																-7			**90**	**60**			**60**		**30**		**2**																	4					90	2	2	
									8										**105**	**60**			**60**		**45**	**30**	**2**																						4	135	3	3	
	Calculus/Математический анализ																		**975**	**450**	**210**		**240**		**525**	**150**	**8**																								1 125	25	25	
Б.1.5	Introduction to Mathematical Analysis/Введение в математический анализ	1																	**195**	**90**	**30**		**60**		**105**	**30**	**5**	2		4																							225	5	5	
Б.1.6	Mathematical Analysis – Functions of One Variable/Математический анализ – функции одной переменной		2																**240**	**120**	**60**		**60**		**120**	**30**	**3**				4		4																				270	6	6	
Б.1.7	Mathematical Analysis – Sequences and Series of Functions, Functions of Several Variables/Математический анализ – функциональные последовательности и ряды,			3															**240**	**120**	**60**		**60**		**120**	**30**								4		4																270	6	6	
Б.1.8	Multiple Integrals and Field Theory/Кратные интегралы и теория поля				4														**150**	**60**	**30**		**30**		**90**	**30**											2		2														180	4	4	
Б.1.9	Fourier Analysis/Фурье анализ					5													**150**	**60**	**30**		**30**		**90**	**30**														2		2										180	4	4	
Б.1.10	Ordinary Differential Equations/Дифференциальные уравнения																		**285**	**120**	**60**		**60**		**165**	**30**	**4**																										315	7	7	
													4						**135**	**60**	**30**		**30**		**75**		**2**									2		2														135	3	3	
						5													**150**	**60**	**30**		**30**		**90**	**30**	**2**												2		2										180	4	4	
Б.1.В.1	Functions of One Complex Variable/Теория функций комплексного переменного						6												**150**	**90**	**45**		**45**		**60**	**30**	**3**															3		3								180	4		4
Б.1.11	Health Concepts & Strategies/Физическая культура									-1									**90**	**60**			**60**		**30**					4																						90	2	2	

| № in order | Name of disciplines, practices, State Final Examination | Form of final control by semesters: Examinations 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Graded test ("-" - simple) 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | State Examination | Hours: Total for education | 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 lec | lab | sem | 1 course, 2 sem. 15 weeks lec | lab | sem | 2 course, 3 sem. 15 weeks lec | lab | sem | 2 course, 4 sem. 15 weeks lec | lab | sem | 3 course, 5 sem. 15 weeks lec | lab | sem | 3 course, 6 sem. 15 weeks lec | lab | sem | 4 course, 7 sem. 15 weeks lec | lab | sem | 4 course, 8 sem. 15 weeks lec | lab | sem | TOTAL HOURS | Credit points: Total | Basic | Elective |
|---|---|---

№ in order	Name of disciplines, practices, State Final Examination	Form of final control by semesters: Examinations								Graded test ("-" - simple)								State Examination	Hours: Total for education	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						2 course						3 course						4 course						TOTAL HOURS	Credit points: Total	Basic	Elective
																												1 sem. 15 weeks			2 sem. 15 weeks			3 sem. 15 weeks			4 sem. 15 weeks			5 sem. 15 weeks			6 sem. 15 weeks			7 sem. 15 weeks			8 sem. 15 weeks								
																												lec	lab	sem	lec	lab	sem	lec	lab	sem	lec	lab	sem	lec	lab	sem	lec	lab	sem	lec	lab	sem	lec	lab	sem						
1	2	3								4								5	6	7	8	9	10	11	12	13	14	15			16			17			18			19			20			21			22			23	24	25	26
Б.1.В.3	Mathematical Thinking/Математическое мышление									1									135	60	30		30		75		2	2		2																							135	3		3
Б.1.В.4	Basics of Mathematical logic I/Основы математической логики I		2																150	60	30		30		90	30	2				2		2																				180	4		4
Б.1.В.5	Data Structures and Algorithms II/Структуры данных и алгоритмы											3							180	60	30	30			120									2	2																	180	4		4
Б.1.В.6	Data Structures and Algorithms III/Структуры данных и алгоритмы												4						180	60	30	30			120												2	2															180	4		4
	Elective Set of Courses 1/Блок дисциплин по выбору 1																		135	60			60		75																												135	3		3
Б.1.В.7	Constraint Programming/Программирование в ограничениях												4						135	60			60		75														4														135	3		3
Б.1.В.8	Matlab/Matlab												4						135	60					75																												135	3		3
Б.1.В.9	Combinatorics and Graphs/Комбинаторика и графы											3							135	60	30		30		75									2		2																	135	3		3
Б.1.В.10	Complex Networks/Сложные сети												4						135	60	30		30		75												2		2														135	3		3
Б.1.В.11	Python/Язык программирования Python											3							135	30		30			105									2																			135	3		3
Б.1.28	Databases/Базы данных												4						180	60	30	30			120												2	2															180	4	4	
Б.1.В.12	Algebra and Number Theory/Алгебра и теория чисел											3							135	60	30		30		75		2							2		2																	135	3		3
Б.1.В.13	Elementary Number Theory and Number System/Элементарная теория чисел и системы									1									135	60	30		30		75		2	2		2																							135	3		3
Б.1.В.14	Java/Язык программирования JAVA													5					180	60	30	30			120															2	2												180	4		4
Б.1.В.15	Workshop on Software Development/Практикум по разработке программ																		360	120		120			240																												360	8		8
														5					180	60		60			120																4											180	4		4
															6				180	60		60			120																		4										180	4		4
Б.1.В.16	Parallel and Disrtibuted Computing I/Параллельные и распределённые вычисления I													5					180	60	30	30			120															2	2												180	4		4
Б.1.В.17	Parallel and Distributed Computing II/Параллельные и распределённые вычисления II						6												195	60	30	30			135	30																	2	2									225	5		5
Б.1.В.18	Fundamentals of Topology/Основы топологии																7		135	60	30		30		75		2																		2		2				135	3		3
	Core science/Профильные дисциплины																		645	240	120	60	60		405	30	1																										675	15		15
Б.1.В.19	Machine Learning/Машинное обучение																		375	120	60	60			255	30																											405	9		9
																	7		180	60	30	30			120																					2	2					180	4		4
									8										195	60	30	30			135	30																						2	2			225	5		5
Б.1.В.20	Information Theory/Теория информации																	8	135	60	30		30		75		1																					2		2	135	3		3
Б.1.В.21	Web-graphs/Веб-графы																	8	135	60	30		30		75																							2		2	135	3		3
Б.2	**Practice/Практика**																		1 575					1 575																												1 575	35	27	8
Б.2.1	**Industrial Practice/Производственная практика**																		1 215					1 215																												1 215	27	27	
Б.2.1.1	Personal Research Project/Научно-исследовательская работа																		1 215					1 215																												1 215	27	27	
																	7		765					765																												765	17	17	
																		8	450					450																												450	10	10	
Б.2.2	**Educational Practice/Учебная практика**																		360					360																												360	8		8

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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			23	24	25	26
Б.2.2.В.1	Research Practice/Научно-исследовательская практика																		**360**					**360**																											360	8		8
														5					**180**					**180**																											180	4		4
															6				**180**					**180**																											180	4		4
Б.3	**State Final Certification/Государственная итоговая аттестация**																		**315**						**315**	**90**																									405	9	9	
Б.3.1	Preparation for and Taking State Examination in Mathematics/Подготовка к сдаче и сдача государственного экзамена по математике						6											6	**60**						**60**	**30**																											90	2	2	
Б.3.2	Preparation for and Taking State Examination in Informatics and Discrete Mathematics/Подготовка к сдаче и сдача государственного экзамена по информатике и дискретной математике							7										7	**60**						**60**	**30**																											90	2	2	
Б.3.3	Performance of and Defence of Graduation Thesis/Выполнение и защита выпускной квалификационной работы								8									8	**195**						**195**	**30**																											225	5	5	

TOTAL:		Number of examinations and pass/fail tests: Examinations 1	2	3	4	5	6	7	8	Pass/Fail tests 1	2	3	4	5	6	7	8		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	4	2	1	2	3		2	6	5	6	8	7	5	4	5	Obl.	10 560	3 825	1 440	540	1 845	1 575	5 160	570	57	30	38	34	36	32	30	12	19	11 130	240	155	85
	Physical education									1	1	1	1	1	1			ECs.																						
	Extracurriculars																																							
	State Final Examination						1	1	1																															

Distribution of hours of contact work by years and semesters								Total hours
1 245		1 248		1 151		570		4 214
557	688	609	639	584	567	226	344	

Distribution of credits by years and semesters							
58		59		63		60	
26	32	29	30	32	31	28	32

И.о. начальника учебного управления T. F.