			Froms of Interim assessment Credits Total academic hours					Yez	ir 1	Yez	ar 2	Yes	ar 3	Yez	ar 4		Arrigand department					
Name	Examin	Pass/	Pass/ fail	Term	Course	Module	Calculat ion and		As	Work	Self		er 1	Semest er 2	er 3	Semest er 4	er 5	Semest er 6	Semest er 7	er 8		Assigned department
Unit 1.Disciplines (modules)	ation	fall exam	exam with a grade	project	work	test	graphic work	Fact 210	sheduled 7560	with a teacher 3713.2	study 3082.3	764.5	Credits 31	Credits 29	Credits 28	Credits 26	Credits 31	Credits 23	Credits 31	Credits 11	Code	Name
Core part Basis	2	11112	11224	l		ı	l	124	4464 1152	2243.9 5 704.05	1803.0 5 413.2	417 34.75	31	29	28	26	6	4				
History of Russia Basics of Russian statehood	-	23 1	2					4	144 72	140.3	3.7 18.85		2	2							71 72	Department of Social sciences, pedagogy
Legal competence and civil position Philosophy	2	2						2	72 144	35.15 36.25	36.85 73	34.75		2							73 72	
Basics of self-organization, team building and leadership Life safety			1					3	108 144	70.15 70.15	37.85 73.85		3								52 42	Department of Management Department of Technosphere safety and
PE and sport Economic culture		2						2	72 108	16.15 70.15	55.85 37.85		2	3							56 51	environmental engineering Department of PE Department of Economics and finances
Foreign language Foreign language Foreign language: Russian as a foreign language		13 13	24 24 24					8 8	288 288 288	212.6 212.6 212.6	75.4 75.4 75.4		2 2 2	2 2	2 2 2	2 2 2					45 55	Department of Foreign languages Department of Russian language
Digital module IT and basics of programming	2	1	3					9	324 216	107.4	128.7 73.85	34.75 34.75	2	4	3						13	Department of Applied mathematics and Information technologies Department of Applied mathematics and
Data analysis and artificial intelligence Project module Basics of project activity		4	3 3					3 5 3	108 180 108	53.15 75.3 35.15	54.85 104.7 72.85				2	3					13	Information technologies Department of Economics and finances
Social project "Service-learning"	11233	1346	3		4	11223	134	2 74	72 2664	40.15	31.85	347.5	14	10	2	21	6	4			72	
Natural science and engineering module Higher mathematics	34445 123				4	123	134	18	648	322.65	221.1	104.25	6	6	6	21	0	,			13	Department of Applied mathematics and Information technologies
Physics Engineering computer graphics	1	1	2			12	1	5	252 180	72.25	73	34.75	3 5	4	5						32	Department of Physics Department of Technological equipment engineering
Programming in high level languages Electronics and circuitry	3 3	3					3	5 5	180 180 288	71.25 125.4	37 74 127.85	34.75 34.75			5	5					11 13	Department of Applied mathematics and
Mathematical foundations of computing and programming Databases Operation systems	4	4			4		1	6 4	216 144	92.25 70.15	89 73.85	34.75			3	6					12	Information technologies Department of Applied informatics Department of Applied informatics
Data transmission and network technologies Computing systems architecture	5							6	216 216	89.25 71.25	92 110	34.75 34.75				6	6				14	Department of Digital systems and automatics
Security of computer systems and networks Self-development module (elective disciplines)		6 23						4	144	70.15 70.3	73.85 73.7			2	2			4			14	Department of Information security Department of Social sciences, pedagogy
Psychology of communication (Spring) Psychology of communication (Autumn) Bernool marketing and branding (Spring)		3						2 2	72 72	35.15 35.15	36.85 36.85			2	2						73 73	and law Department of Social sciences, pedagogy and law
Personal marketing and branding (Spring) Personal marketing and branding (Autumn) Cultural studies and intercultural communication (Spring)		3 2						2 2	72 72 72	35.15 35.15 35.15	36.85 36.85			2	2						52 52 72	Department of Philosophy and cultural
Cultural studies and intercultural communication (Autumn) Human and society (Spring)		3						2	72	35.15 35.15	36.85			2	2						72	studies Department of Philosophy and cultural studies Department of Social sciences, pedagogy
Human and society (Autumn) Organization of volunteer activities (Spring)		3						2 2	72	35.15 35.15	36.85			2	2						73	and law Department of Social sciences, pedagogy and law Department of Philosophy and cultural
Organization of volunteer activities (Spring)		3						2	72	35.15	36.85				2						72	studies Department of Philosophy and cultural studies Department of Philosophy and cultural
Basics of critical thinking (Spring) Basics of critical thinking (Spring)		3						2	72	35.15 35.15	36.85			2	2						72	Studies Department of Philosophy and cultural studies
Environmental culture (Spring) Environmental culture (Autumn)		3						2	72	35.15 35.15	36.85 36.85			2	2						44	aquaculture Department of Water bioresources and aquaculture
Skills of effective recruitement (Spring) Skills of effective recruitement (Autumn) Personal financial management (Spring)		3 2						2 2 2	72 72 72	35.15 35.15 35.15	36.85 36.85			2	2							Department of Management Department of Management Department of Economics and finances
Personal financial management (Autumn) Basics of modern managent (Spring) Basics of modern managent (Autumn)		3 2 3						2 2 2	72 72 72	35.15 35.15 35.15	36.85 36.85 36.85			2	2						51 52	
Internet of things (Spring) Internet of things (Autumn)		2						2	72	35.15	36.85			2	2						11	Department of Digital systems and automatics Department of Digital systems and
Starting your own business. Start-up (Spring) Starting your own business. Start-up (Autumn)		2						2	72 72	35.15 35.15	36.85 36.85			2	2						51	automatics Department of Economics and finances Department of Economics and finances
Business communication in Russian (Spring) Business communication in Russian (Autumn) Differential equations (Spring)		3						2 2	72 72 72	35.15 35.15 35.15	36.85 36.85			2	2						55 55 13	Department of Russian language Department of Applied mathematics and
Differential equations (Autumn) Numerical methods (Spring)		3						2	72	35.15 35.15	36.85			2	2						13	Department of Applied mathematics and Information technologies
Numerical methods (Autumn)		3						2 2	72	35.15 35.15	36.85			2	2						13	Information technologies Department of Applied mathematics and Information technologies Department of Applied mathematics and
Optimization methods and games theory (Spring) Optimization methods and games theory (Autumn)		3						2	72	35.15	36.85				2						13	Information technologies Department of Applied mathematics and Information technologies Department of Applied mathematics and
Theory of functions of a complex variable (Spring) Theory of functions of a complex variable (Autumn)		3						2	72	35.15 35.15	36.85 36.85			2	2						13	Information technologies Department of Applied mathematics and Information technologies
Applied statistics (Spring) Applied statistics (Autumn)		3						2	72	35.15 35.15	36.85 36.85			2	2						13	Information technologies Department of Applied mathematics and Information technologies
Chemistry basis of modern technologies (Spring) Chemistry basis of modern technologies (Autumn) Chemistry of polymers (Spring)		3 2						2 2 2	72 72 72	35.15 35.15 35.15	36.85 36.85 36.85			2	2						35 35 35	Department of Chemistry
Chemistry of polymers (Spring) Basics of engineering mechanics (Spring)		2						2	72 72	35.15 35.15	36.85 36.85			2	2						24	Department of Chemistry Department of Theory of Mechanisms and machines and machine parts
Basics of engineering mechanics (Autumn) Applied nutritiology (Spring)		2						2	72 72	35.15 35.15	36.85 36.85			2	2						24 31	Department of Theory of Mechanisms and machines and machine parts Department of Food products technology
Applied nutriticlogy (Autumn) Part formed by the educational process particip	pants	3						2 86	72 3096	35.15 1469.2 5	36.85 1279.2 5	347.5			2		25	19	31	11	31	Department of Food products technology
Vocational module Elements and devices of technological process control	55666 77788	5677	5	8	567		6	74	2664	1181.25	1135.25	347.5					19	19	25	11		Department of Digital systems and
Control theory	5				5			5 6	180 216	71.25 92.25	74 89	34.75 34.75					5 6				11	automatics
Programming in C++ Metrological support for industrial systems and facilities	6	5	5		6			10 4	360 144	162.4 70.15	162.85 73.85	34.75					4	6			11	Department of Digital systems and automatics
Software standardization and quality Modeling of industrial systems and objects	6	6					6	3 6	108 216	35.15 108.25	72.85 73	34.75						3 6			11	Department of Digital systems and automatics
Artificial intelligence systems Microprocessor control systems and their programming	7				7			6	144 216	71.25 92.25	38 89	34.75 34.75						4	6		11	Department of Digital systems and automatics
Real-time systems Integrated design and control systems	7							6	216 216	89.25 93.25	92 88	34.75 34.75							6	6	11	Department of Digital systems and automatics Department of Digital systems and automatics
Elective modules Module 1: Embedded systems software Architecture of embedded control systems and Internet of	78 78	77		8				18	648 648	295.8 295.8	282.7 282.7	69.5 69.5							13	5		Department of Digital systems and
thinos Design and development of software for embedded control systems	78	7		8				10	144 360	70.15	73.85 135	69.5							5	5	11	automatics Department of Digital systems and automatics Department of Digital systems and Department of Digital systems and
Computer vision basics Module 2: Autonomous systems software Control to state procedure of proteons	78	7		8				18	144 648	70.15 295.8	73.85 282.7 73.85	69.5							13	5	11	automatics
Control in electromechanical systems Design and development of software in mechatronics and robotics. Authoromy solvable systems and on-board control purposes.	78	7		8				10	144 360	70.15 155.5 70.15	73.85 135 73.85	69.5							5	5	11	automatics Department of Digital systems and automatics Department of Digital systems and
Autonomous robotic systems and on-board control systems Project module Project workshop 1		7	57					4 12 6	144 432 216	70.15 288 144	73.85 144 72						6		6		11	automatics
Research track Digital instruments			5 5					6	216 216 216	144 144	72 72 72						6				86	
Technological track Engineering track Service track			5					6	216 216	144 144	72 72						6				86 86 86	Project center Project center Project center
Project workshop 2 Research track Digital instruments			7 7					6 6	216 216 216	144 144 144	72 72 72								6		86 86	
Technological track Engineering track			7 7 7					6	216 216	144 144 144	72 72 72 72								6		86 86	Project center Project center
Service track Graduation thesis as a start-up Unit 2.Practical training			78					6 6 21	216 216 756	144 756	72					6		6	3	3	86 86	Project center Project center
Core part Academic training Technological practice			4					21 6	756 216 216	756 216 216						6		6		9	11	Department of Digital systems and
Production practice Project module			68 6					15 6	540 216	540 216								6		9		automatics
Technological practice Technological practice			6					6	216 324	216 324								6		9	11	Department of Digital systems and automatics Department of Digital systems and automatics
Unit 3. State final examination Preparation for the defense procedure and defense of the final qualification work								9	324 324			324 324								9	11	
Elective courses Elementary mathematics		2						6	216 72	105.45 35.15	110.55 36.85			2	2						13	Department of Applied mathematics and Information technologies
The historical role of Russia in the system of international relations The Great Patriotic War: no statute of limitations Company products		2						2	72	35.15 35.15	36.85 36.85			2	2						71 71	Department of History Department of History
Complex modules Module "Basics of military training" Module "Basics of military training"		L	6						436 108 108	334 78 78	102 30 30										Ŀ	
Basics of military training (Autumn) Basics of military training (Spring) Module "Physical education and sport"		24	5						108 108 328	78 78 256	30 30 72											
Practical training in PE and sport (elective course)		24							328	256	72										56	Department of PE