

Name	Forms of interim assessment							Credits	Total academic hours				Year 1		Year 2		Year 3		Year 4		Assigned department	
	Examination	Pass/fail exam	Pass/fail exam with a grade	Term project	Course work	Module test	Calculation and graphic work		Fact	As scheduled	Work with a teacher	Self study	Control	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8	Code
								3.e.						3.e.	3.e.	3.e.	3.e.	3.e.	3.e.	3.e.		
Unit 1.Disciplines (modules)								213	7668	4571.3	2366.95	729.75	31	29	27	27	29	25	32	13		
Core part								136	4896	2725.95	1718.3	451.75	31	29	27	27	4	3	11	4		
Basis	2	11112 23	11224					32	1152	710.05	407.2	34.75	15	13	2	2						
History of Russia		1	2					4	144	140.3	3.7		2	2							71	Department of History
Basics of Russian statehood		1						2	72	59.15	12.85		2								72	Department of Philosophy and cultural studies
Legal competence and civil position		2						2	72	35.15	36.85			2							73	Department of Social sciences, pedagogy and law
Philosophy	2							4	144	36.25	73	34.75		4							72	Department of Philosophy and cultural studies
Basics of self-organization, team building and leadership			1					3	108	70.15	37.85		3								52	Department of Management
Life safety			1					4	144	70.15	73.85		4								42	Department of Technosphere safety and environmental engineering
Pe and sport		1						2	72	16.15	55.85		2								56	Department of PE
Economic culture		2						3	108	70.15	37.85			3							51	Department of Economics and finances
Foreign language		13	24					8	288	212.6	75.4		2	2	2	2						
Foreign language		13	24					8	288	212.6	75.4		2	2	2	2					45	Department of Foreign languages
Foreign language: Russian as a foreign language		13	24					8	288	212.6	75.4		2	2	2	2					55	Department of Russian language
Digital module	2	1	3					9	324	160.55	128.7	34.75	2	4	3							
IT and basics of programming	2	1						6	216	107.4	73.85	34.75	2	4							13	Department of Applied mathematics and Information technologies
Data analysis and artificial intelligence			3					3	108	53.15	54.85				3						13	Department of Applied mathematics and Information technologies
Project module		4	3					5	180	75.3	104.7				2	3						
Social project "Service-learning"			3					2	72	40.15	31.85				2						72	Department of Philosophy and cultural studies
Basics of project activity		4						3	108	35.15	72.85					3					51	Department of Economics and finances
Natural science and engineering module	11233 44	3	12			11122 3	3	46	1656	802	610.75	243.25	14	10	12	10						
Higher mathematics	12					12		10	360	143.1	147.4	69.5	5	5							13	Department of Applied mathematics and Information technologies
Physics			1			1		4	144	70.45	73.55		4								25	Department of Physics
Chemical foundations of biotechnology	13		2			123		15	540	267.55	202.95	69.5	5	5	5						87	Chemico-analytical resource center
Engineering computer graphics		3					3	3	108	71.15	36.85				3						32	Department of Technological equipment engineering
Molecular cell biology	34							8	288	142.5	76	69.5			4	4					87	Chemico-analytical resource center
General microbiology	4							6	216	107.25	74	34.75				6					87	Chemico-analytical resource center
Module of field subjects		57	6					10	360	282.45	77.55					4	3	3				
Food chemistry		5						4	144	106.15	37.85					4					87	Chemico-analytical resource center
Metrology, standardization and technical regulation			6					3	108	106.15	1.85						3				87	Chemico-analytical resource center
Quality management in biotechnology		7						3	108	70.15	37.85								3		87	Chemico-analytical resource center
Module of field subjects	3478	47		78	4			30	1080	625.3	315.7	139			6	12			8	4		
Research methods in biotechnology	34							12	432	214.5	148	69.5			6	6					87	Chemico-analytical resource center
Fundamentals of scientific research		4			4			6	216	109.15	106.85					6					87	Chemico-analytical resource center
Equipment for biotechnological production	7			7				5	180	111.25	34	34.75							5		87	Chemico-analytical resource center
Fundamentals of biotechnological production design	8	7		8				7	252	190.4	26.85	34.75							3	4	87	Chemico-analytical resource center
Self-development module (elective disciplines)		23						4	144	70.3	73.7			2	2							
Psychology of communication (Spring)		2						2	72	35.15	36.85			2							73	Department of Social sciences, pedagogy and law
Psychology of communication (Autumn)		3						2	72	35.15	36.85				2						73	Department of Social sciences, pedagogy and law
Personal marketing and branding (Spring)		2						2	72	35.15	36.85			2							52	Department of Management
Personal marketing and branding (Autumn)		3						2	72	35.15	36.85				2						52	Department of Management

Cultural studies and intercultural communication (Spring)		2						2	72	35.15	36.85			2						72	Department of Philosophy and cultural studies	
Cultural studies and intercultural communication (Autumn)		3						2	72	35.15	36.85				2						72	Department of Philosophy and cultural studies
Human and society (Spring)		2						2	72	35.15	36.85			2							73	Department of Social sciences, pedagogy and law
Human and society (Autumn)		3						2	72	35.15	36.85				2						73	Department of Social sciences, pedagogy and law
Organization of volunteer activities (Spring)		2						2	72	35.15	36.85			2							72	Department of Philosophy and cultural studies
Organization of volunteer activities (Spring)		3						2	72	35.15	36.85				2						72	Department of Philosophy and cultural studies
Basics of critical thinking (Spring)		2						2	72	35.15	36.85			2							72	Department of Philosophy and cultural studies
Basics of critical thinking (Spring)		3						2	72	35.15	36.85				2						72	Department of Philosophy and cultural studies
Environmental culture (Spring)		2						2	72	35.15	36.85			2							44	Department of Water bioresources and aquaculture
Environmental culture (Autumn)		3						2	72	35.15	36.85				2						44	Department of Water bioresources and aquaculture
Skills of effective recruitment (Spring)		2						2	72	35.15	36.85			2							52	Department of Management
Skills of effective recruitment (Autumn)		3						2	72	35.15	36.85				2						52	Department of Management
Personal financial management (Spring)		2						2	72	35.15	36.85			2							51	Department of Economics and finances
Personal financial management (Autumn)		3						2	72	35.15	36.85				2						51	Department of Economics and finances
Basics of modern management (Spring)		2						2	72	35.15	36.85			2							52	Department of Management
Basics of modern management (Autumn)		3						2	72	35.15	36.85				2						52	Department of Management
Internet of things (Spring)		2						2	72	35.15	36.85			2							11	Department of Digital systems and automatics
Internet of things (Autumn)		3						2	72	35.15	36.85				2						11	Department of Digital systems and automatics
Starting your own business. Start-up (Spring)		2						2	72	35.15	36.85			2							51	Department of Economics and finances
Starting your own business. Start-up (Autumn)		3						2	72	35.15	36.85				2						51	Department of Economics and finances
Business communication in Russian (Spring)		2						2	72	35.15	36.85			2							55	Department of Russian language
Business communication in Russian (Autumn)		3						2	72	35.15	36.85				2						55	Department of Russian language
Differential equations (Spring)		2						2	72	35.15	36.85			2							13	Department of Applied mathematics and Information technologies
Differential equations (Autumn)		3						2	72	35.15	36.85				2						13	Department of Applied mathematics and Information technologies
Numerical methods (Spring)		2						2	72	35.15	36.85			2							13	Department of Applied mathematics and Information technologies
Numerical methods (Autumn)		3						2	72	35.15	36.85				2						13	Department of Applied mathematics and Information technologies
Optimization methods and games theory (Spring)		2						2	72	35.15	36.85			2							13	Department of Applied mathematics and Information technologies
Optimization methods and games theory (Autumn)		3						2	72	35.15	36.85				2						13	Department of Applied mathematics and Information technologies
Theory of functions of a complex variable (Spring)		2						2	72	35.15	36.85			2							13	Department of Applied mathematics and Information technologies
Theory of functions of a complex variable (Autumn)		3						2	72	35.15	36.85				2						13	Department of Applied mathematics and Information technologies
Applied statistics (Spring)		2						2	72	35.15	36.85			2							13	Department of Applied mathematics and Information technologies
Applied statistics (Autumn)		3						2	72	35.15	36.85				2						13	Department of Applied mathematics and Information technologies
Chemistry basis of modern technologies (Spring)		2						2	72	35.15	36.85			2							35	Department of Chemistry
Chemistry basis of modern technologies (Autumn)		3						2	72	35.15	36.85				2						35	Department of Chemistry
Chemistry of polymers (Spring)		2						2	72	35.15	36.85			2							35	Department of Chemistry
Chemistry of polymers (Spring)		3						2	72	35.15	36.85				2						35	Department of Chemistry
Basics of engineering mechanics (Spring)		2						2	72	35.15	36.85			2							24	Department of Theory of mechanisms and machines and machine parts
Basics of engineering mechanics (Autumn)		3						2	72	35.15	36.85				2						24	Department of Theory of mechanisms and machines and machine parts
Applied nutritionology (Spring)		2						2	72	35.15	36.85			2							31	Department of Food products technology
Applied nutritionology (Autumn)		3						2	72	35.15	36.85				2						31	Department of Food products technology
Part formed by the educational process participants								77	2772	1845.35	648.65	278					25	22	21	9		
Vocational module	55566	677	55667	788	8	56		65	2340	1557.35	504.65	278					19	22	15	9		
Fundamentals of virology and immunology	5							4	144	71.25	38	34.75					4				87	Chemico-analytical resource center

Biosafety of food and dietary supplements	5			5				5	180	107.25	38	34.75					5				87	Chemico-analytical resource center	
Environmental biotechnology		5						3	108	70.15	37.85						3				87	Chemico-analytical resource center	
Fundamentals of patent law and intellectual property protection	5							4	144	107.25	2	34.75					4				87	Chemico-analytical resource center	
Technical microbiology	6							5	180	107.25	38	34.75						5			87	Chemico-analytical resource center	
Genetic engineering and bioengineering	6							5	180	107.25	38	34.75						5			87	Chemico-analytical resource center	
Agrobiotechnology		6						4	144	106.15	37.85							4			87	Chemico-analytical resource center	
Technology of enzyme and microbial preparations	6			6				5	180	111.25	34	34.75						5			87	Chemico-analytical resource center	
Animal cell engineering	7							4	144	107.25	2	34.75							4		87	Chemico-analytical resource center	
Fundamentals of enzymology and catalysis	7							4	144	107.25	2	34.75							4		87	Chemico-analytical resource center	
Biochemistry and plant biotechnology		7						4	144	106.15	37.85								4		87	Chemico-analytical resource center	
Introduction to bioinformatics		7	8					6	216	149.3	66.7								3	3	87	Chemico-analytical resource center	
Fundamentals of pharmaceutical biotechnology		8						3	108	106.15	1.85									3	87	Chemico-analytical resource center	
Elective courses (modules) 1		5						3	108	70.15	37.85							3					
Nanobiotechnology		5						3	108	70.15	37.85								3			87	Chemico-analytical resource center
Cryobiology		5						3	108	70.15	37.85								3			87	Chemico-analytical resource center
Basics of molecular nutrition		5						3	108	70.15	37.85								3			87	Chemico-analytical resource center
Elective courses (modules) 2		6						3	108	70.15	37.85							3					
Nanobiotechnology		6						3	108	70.15	37.85								3			87	Chemico-analytical resource center
Cryobiology		6						3	108	70.15	37.85								3			87	Chemico-analytical resource center
Basics of molecular nutrition		6						3	108	70.15	37.85								3			87	Chemico-analytical resource center
Elective courses (modules) 3		8						3	108	53.15	54.85										3		
Evolutionary biotechnology		8						3	108	53.15	54.85										3	87	Chemico-analytical resource center
Introduction to Data Science		8						3	108	53.15	54.85										3	87	Chemico-analytical resource center
Methods of structural biology		8						3	108	53.15	54.85										3	87	Chemico-analytical resource center
Project module			57					12	432	288	144							6		6			
Project workshop 1			5					6	216	144	72							6					
Research track			5					6	216	144	72							6				86	Project center
Digital instruments			5					6	216	144	72							6				86	Project center
Technological track			5					6	216	144	72							6				86	Project center
Engineering track			5					6	216	144	72							6				86	Project center
Service track			5					6	216	144	72							6				86	Project center
Project workshop 2			7					6	216	144	72									6			
Research track			7					6	216	144	72								6			86	Project center
Digital instruments			7					6	216	144	72								6			86	Project center
Technological track			7					6	216	144	72								6			86	Project center
Engineering track			7					6	216	144	72								6			86	Project center
Service track			7					6	216	144	72								6			86	Project center
Graduation thesis as a start-up			78					6	216	144	72									3	3	86	Project center
Unit 2. Practical training								21	756	756								6		6		9	
Core part								21	756	756								6		6		9	
Academic training			4					6	216	216								6					
Introductory practice			4					6	216	216								6				87	Chemico-analytical resource center
Production practice			68					15	540	540									6		9		
Project module			6					6	216	216									6				
Technological practice			6					6	216	216									6			87	Chemico-analytical resource center
Pre-graduation practice			8					9	324	324											9	87	Chemico-analytical resource center
Unit 3. State final examination								6	216			216									6		
Preparation for the defense procedure and defense of the final qualification work								6	216			216									6	87	Chemico-analytical resource center
Elective courses								6	216	105.45	110.55							4	2				
Elementary mathematics			2					2	72	35.15	36.85							2				13	Department of Applied mathematics and Information technologies
The historical role of Russia in the system of international relations			2					2	72	35.15	36.85							2				71	Department of History

The Great Patriotic War: no statute of limitations		3					2	72	35.15	36.85				2					71	Department of History
Complex modules								436	334	102										
Module "Basics of military training"			6					108	78	30										
Module "Basics of military training"			6					108	78	30										
Basics of military training (Autumn)			5					108	78	30										
Basics of military training (Spring)			6					108	78	30										
Module "Physical education and sport"			24					328	256	72										
Practical training in PE and sport (elective course)			24					328	256	72									56	Department of PE