

CURRICULUM
Bachelor Degree Program
Form of Training: Full Time
Area of Study 02.03.02 Fundamental Computer Science and Information Technology
Program: Fundamental Computer Science and Information Technology
Beginning of Study 2019

First Year

I SEMESTER						II SEMESTER					
Discipline	Form of Control	Lectures	Lab	Seminars	Credits	Discipline	Form of Control	Lectures	Lab	Seminars	Credits
Foreign Language	Exam			32	4	Foreign Language	Test			32	3
Mathematical Analysis	Test, Exam	48		48	6	History	Exam	16		32	4
Algebra and geometry	Exam	32		32	4	Mathematical Analysis	Test, Exam	16		48	5
Discrete mathematics	Test			32	2	Algebra and geometry	Test, Exam			48	5
Basics of programming	Test	32	32	32	4	Discrete mathematics	Exam	16		16	4
Physical education and sport	Test	8		52	2	Basics of programming	Exam	32	32	32	5
Introduction to the specialty	Test	16			2	Graph theory	Test	16		16	4
Introduction to Microsoft Office	Test	16		16	3	Physical culture and sport (elective discipline)	Test			68	
Culture of Russia's peoples	Test			32	3						
Russian language and culture of speech	Test			32	3						

Second Year

III SEMESTER					IV SEMESTER				
Discipline	Form of Control	Lectures	Seminars	Credits	Discipline	Form of Control	Lectures	Seminars	Credits
Foreign Language	Test		32	3	Foreign Language	Exam		64	4
Philosophy	Exam	16	16	4	Mathematical Analysis	Test, Exam		48	4
Mathematical Analysis	Exam		48	4	Differential equations	Exam	16	16	4
Information theory	Test	32		3	Probability theory and mathematical statistics	Test	32	32	3
Software Engineering	Test	32	32	3	Operating systems	Test	16	16	3
Computer Architecture	Test	16	16	3	Databases	Test	16	32	3
Graph theory	Exam	16	16	4	Philosophical logic	Test	32		3
Physical culture and sport (elective discipline)	Test		68		Physical culture and sport (elective discipline)	Test		68	

Third Year

V SEMESTER							VI SEMESTER						
Discipline	Form of Control	Lect ures	Lab	Sem inars	Other forms	Cred its	Discipline	Form of Control	Lect ures	Lab	Sem inars	Other forms	Cred its
Foreign Language	Exam			64		4	Foreign Language	Exam			64		4
Life and labour safety	Test	32				2	Computational methods	Exam	16		32		4
Mathematical logic and theory of algorithms	Exam	32		32		5	Physics	Exam	32		32		4
Physics	Test	32		32		3	Computer networks	Test	16		16		2
.NET Technologies	Test	32				2	Concepts of modern natural science	Test	32				2
Java technologies	Test	32	16	16		2	.NET Technologies (advanced)	Test	16	16			2
Analysis and development of algorithms	Test	32				2	Computer graphics	Exam	48		48		4
Applied probability theory	Exam			32		3	Internet technologies	Test	72				2
Research work (obtaining primary research skills)	Test			8	108	5	Programming for mobile systems (elective)	Exam	32		32		3
							Human-machine interface design (elective)	Exam	32		32		3
							Basics of IT project management (elective)	Test		32			2
							Probabilistic models in natural science (elective)	Test		32			2
							Research work	Test with mark			8	36	3

Forth Year

VII SEMESTER							VIII SEMESTER						
Discipline	Form of Control	Lect ures	Lab	Sem inars	Other forms	Cred its	Discipline	Form of Control	Lect ures	Lab	Sem inars	Other forms	Cred its
Foreign Language	Test			64		3	Foreign Language	Exam			30		3
Optimization methods	Exam	16		32		4	Social and ethical issues of IT	Test	10		10		2
Operations research	Exam	32		48		5	High-performance computing	Test	20	20	20		3
Theory of automata and formal languages	Exam	32		32		5	Nonlinear logic	Test	20		20		3
Sociology	Exam	48				5	Computer animation	Test	10		10		2
Coding theory (elective)	Test	16	16			3	Pre-graduation practice	Test with mark			16	208	8
Mathematical modeling in the natural sciences (elective)	Test	16	16			3	State exam - final interdisciplinary exam in the area of studies	Exam	10				3
Research work	Test with mark			8	108	5	Graduation qualification work - bachelor's degree paper	Exam					6
Combinatorial analysis (optional)	Test	16		16		2	Statistics of random processes (optional)	Test	10		10		2