

Years of Study: 2019/2020 - 2022/2023
Length of Programme: 4 years
Mode of Study: Full Time
Degree: Bachelor's degree

Faculty of Economics, Management and Business Informatics, Perm

Block Code	Course	Credits	Credits by Years				Planned Educational Programme Development Results (competencies according to the educational standard)
			1	2	3	4	
	Degree Programme	240	60	60	60	60	
	General Programme Part	5	5			0	
1	Safe Living Basics	1	1				-1
2	Physical Training	1	1			0	-32
3	History	3	3				-1, -2, -3
	Professional Programme Part (Major)	152	38	39	39	36	
	Basic Components	121	38	39	29	15	
1	Calculus	8	8				-2
2	Algebra	8	8				-1, -2
3	Programming	10	10				-1, -2, -3, -4, -10, -11, -16, -17, -19, -6
4	Discrete Mathematics	8	8				-1, -2, -4, -12, -13, -6
5	Introduction into Software Engineering	4	4				-1, -2, -4, -6, -10, -16, -18, -19, -23, -26, -7
6	Computer System Architecture	4		4			-1, -10, -11, -16, -17, -9
7	Operating Systems	4		4			-1, -2, -10, -11, -12, -14, -15, -16, -17, -9
8	Probability Theory and Mathematical Statistics	5		5			-2, -3
9	Statistical and Empirical Methods of Computing	5		5			-1, -2, -3
10	Algorithms and Data Structures	8		8			-4, -13, -16, -17, -7
11	Databases	5		5			-1, -2, -3, -10, -11, -12, -15, -16, -17, -19, -6
12	Software Design	8		8			-1, -10, -12, -14, -16, -17, -19
13	Group Dynamics and Communication in Software Engineering Professional Practice	4			4		-24, -28, -29, -30, -31, -34, -35, -5, -7, -8, -20, -21
14	Software Engineering Economics	5			5		-4, -7, -8
15	Software Quality Assurance and Testing (offered in English)	5			5		-8, -1, -2, -10, -11, -13
16	Development and Analysis of Requirements	6			6		-28, -119, -123, -18, -23, -27, -3
17	Intellectual Law	4			4		-31, -35
18	Software Systems Architecture Design	5			5		-2, -3, -4, -6, -10, -12, -13, -14, -15, -16, -19, -27, -9
19	Software Project Management	5				5	-4, -3, -22, -24, -25, -7
20	Distributed Computing	5				5	-3, -5, -3, -4, -6, -10, -11, -12, -13, -14, -15, -16, -17, -9
21	Philosophy of Science	5				5	-1, -2, -6, -9, -30, -31, -33, -36
22	English Language Integrative Exam	0					-1, -10, -8
23	Independent English Language Test	0					-1, -10, -8
	Elective Courses	31		10	21		
	(1 3) (I)	5			5		
1	Web Programming	5			5		-18, -7, -17, -15, -16
2	Automation of Enterprise Accounting	5			5		-2, -3, -6
3	Machine Learning 1	5			5		-1, -2, -3
	(1 3) (II)	5					
1	Computer Graphics	5			5		-1, -2, -3, -10, -11, -12, -16, -17, -4
2	Mobile Development	5			5		-15, -16, -17, -18, -7
3	Modern Programming Languages and Technologies	5			5		-17, -15, -16, -18, -7
	(3 6) (II)	21				21	
1	Data Analysis Technologies in Internet	7			7		-1, -2, -16, -17, -3
2	Web Programming	7			7		-15, -16, -17, -18, -7
3	Intelligent Systems	7			7		-1, -2, -16, -17, -3
4	Modern Programming Languages and Technologies	7			7		-4, -6, -10, -11, -12, -13, -14, -16, -17, -9, -1, -3
5	Semantic Information Systems	7			7		-1, -2, -16, -17, -3
6	Neuron Networks	7			7		-1, -2, -16, -17, -3
	Extra Profile (Minor)	20		10	10		
1	Minor	20		10	10		-3, -1, -2
	Internships, Projects and/or Research Activity	60	17	11	11	21	
1	Computer Practice in Foundations of Algorithmization and Programming Techniques	3	3				-3, -10, -11, -17, -18, -9
2	Computer Practice in Application Suite	3	3				-1
	Internship	15	3	3	3	6	
1	Educational Internship	3	3				-8, -10, -16, -23, -6
2	Technological Internship	3		3			-15, -17, -23, -25, -6, -8, -10
3	Work Experience Internship	3			3		-10, -15, -17, -19, -22, -23, -24, -25, -26, -27, -7
4	Graduation Internship	6				6	-2, -10, -11, -16, -23, -24, -25, -26, -27, -7, -8
	Research Seminar/Project Seminar	12	3	3	3	3	
1	Research Seminar	9	3	3	3	3	-1, -2, -6, -2, -4, -5
2	Research Seminar "Analytics in IoT"	3			3		
3	Research Seminar "Formal Methods in Software Engineering"	3			3		
	Projects	6	0			6	
1	Software Engineering Capstone Design Project	6				6	-6, -16, -8, -1, -4, -7, -7, -10, -11, -12, -13, -19, -20, -21, -23, -24, -25, -28, -29, -30, -31, -4, -5, -6, -9
	Term Papers	15	5	5	5		
1	Term Paper	15	5	5	5		-6, -9, -10, -1, -2, -9, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -23, -8, -3, -5, -5, -21, -8
	Preparing of Graduation Thesis	6				6	
1	Graduation Thesis	6				6	-12, -13, -14, -15, -16, -17, -18, -19, -20, -1, -2, -3, -4, -5, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32, -33, -34, -35, -36, -9, -6, -7, -8, -10, -1, -2, -3, -4, -5, -6, -7, -8, -9, -10, -11
8	Project Proposal						-10, -31, -36
	Final State Certification (FSC)	3				3	
1	Graduation Thesis	3				3	-1, -2, -3, -4, -5, -6, -7, -8, -9, -33, -34, -35, -36, -9, -10, -1, -2, -3, -4, -5, -6, -7, -8, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -30, -31, -32
	Optional Courses	0	0	0			
1	English Language	14	8	6			-5, -7, -8, -1
2	Academic English Writing	2				2	-1, -2, -5, -6, -8, -5