

CURRICULUM

08.04.01 *Civil Engineering*

Master's Program *Theory and Design of Buildings and Structures*

Courses	Semester	Credits (hours)	Credit hours			Progress Evaluation
			Total	including		o
				Lect ures	Pract ical class es	
Methods for solving scientific and engineering problems in civil engineering	1,2	5 (180)	90	36	54	Pass/fail exam
Information technologies in civil engineering	3	3 (108)	54	18	36	Pass/fail exam
Structural design and analysis of buildings	1	4 (144)	36	18	18	exam
Efficiency of innovations and innovative technologies in civil engineering	3	3 (108)	54	18	36	Pass/fail exam
Russian language	1	6 (216)	108	18	90	Pass/fail exam
Structural durability and reliability	1,2	7 (252)	90	36	54	exam
Foundation engineering in difficult soil conditions, a coursework	2	5 (180)	54	18	36	exam
Steel structures (a specialized course), a coursework	2	5 (180)	54	18	36	exam
Reinforced concrete constructions (a specialized course), a coursework	3	8 (288)	54	18	36	exam
Design software for structural design calculation	3	3 (108)	54	18	36	Pass/fail exam
Automated systems in civil engineering						

Calculation theory for structural engineering	1	6 (216)	72	36	36	exam
Structural efficiency						
Structural reinforcement (building constructions, bases and foundations)	3	5 (180)	54	18	36	exam
Structural monitoring and reinforcement						
Experimental research work	1	8 (288)				<i>Pass/fail exam*</i>
Industrial placement	2	8 (288)		5 1/3 weeks		<i>Pass/fail exam*</i>
Computer-aided construction internship	3	8 (288)		5 1/3 weeks		<i>Pass/fail exam*</i>
Work experience internship	2	6 (216)		4 weeks		<i>Pass/fail exam*</i>
Research internship	4	24 (864)		16 weeks		<i>Pass/fail exam*</i>
Graduation Certification	4	6 (216)		4 weeks		
Total		120 (4320)	774	270	504	

Pass/fail exam- Graded exam*