Curricular structure of the Master's program in Software Engineering (120 ECTS)

| No. | Name of the course | Distribution by semesters | | | Number of ECTS credits |
		Exams	Tests	Individual assignments	
1	2	3	4	5	6
1	**Compulsory educational components**				**84.0**
1.1	**General training**				**14.00**
GT 1	**Foreign language for professional purposes**		1-2		4.0
GT 2	**English for academic purposes**	3-4			4.0
GT 3	**Intellectual property**		1	Essay	3.0
GT 4	**Innovative entrepreneurship and startup project management**		3	Essay	3.0
1.2	**Special (professional) training**				**32.00**
PT 1	**Intelligent systems software**		3	Project	5.0
PT 2	**Formal methods of software systems research**	1			3.0
PT 3	**Fundamentals of intelligent systems design**	1			3.0
PT 4	**Scientific school of the department**	1			3.0
PT 5	**Project management in software engineering**	2			4.0
PT 6	**Decision support models and methods**	2			4.0
PT 7	**Models and technologies for ensuring the security of intelligent systems**	1			3.0
PT 8	**Introduction to DevOps**		2		3.0
PT 9	**Big Data**		4		3.0
1.3	**Scientific training**				**39.00**
ST 1	**Fundamentals of scientific research**		3		3.0
ST 2	**Modern research directions in software engineering**		3	Essay	4.0
ST 3	**Philosophical problems of modern scientific cognition**	4			3.0
ST 4	**R&D**		2,4		6.0
ST 5	**Research practice**		1-4		14.0
	Certification				9.0
2	**Elective educational components**				**36.0**
2.1	**Specialized training**				**15.00**
2.1.1	**Specialized package of disciplines 01 "Project Management in Software Engineering"**				**15.00**
ET 1.1	**Requirements analysis and management**		1		5.0
ET 1.2	**Project management**		1		5.0
ET 1.3	**Innovation and entrepreneurship**		2		5.0
2.1.2	**Specialized package of disciplines 02 "Cloud Computing"**				**15.00**
ET 2.1	**Databases and data warehouses**		1		5.0
ET 2.2	**Intelligent data analysis and knowledge mining**		1		5.0
ET 2.3	**Cloud Computing: cloud technologies and applications**		2		5.0
2.1.3	**Specialized package of disciplines 03 "Artificial intelligence and Machine Learning"**				**15.00**
ET 3.1	**Intelligent data analysis and knowledge mining**		1		5.0
ET 3.2	**Multi-agent systems and technologies**		1		5.0

No.	Name of the course	Distribution by semesters			Number of ECTS credits
		Exams	Tests	Individual assignments	
ET 3.3	**Neural networks and computational intelligence methods**		2		5.0
2.2	**Elective courses of specialized training according to the list**		**3**		**3.00**
2.3	**Legal and psychological courses according to the list**				**6.00**
	Discipline of psychological orientation		4		3.0
	Discipline of legal orientation		4		3.0
2.4	**Elective courses of scientific and professional orientation**				**12.00**
	Course 1		2		4.0
	Course 2		3		4.0
	Course 3		3		4.0
	Total number for the training period				**120.0**