

Degree Structure

#	Activity Type	ECTS cr
1.	Basic studies	60
	General studies	9
	Basic professional studies	51
2.	Professional studies	15
3.	Elective studies	6
	Professional studies	11
4.	Practice and Scientific Research	30
5.	Final Certification	9
	Total	120

Courses

#	Course Name	Period (semester)	ECTS cr
Basic General Studies(9 ECTS cr)			
1.	English language for professional activities	1, 2	4
2.	History and methodology of science and technology	1	3
3.	Higher education pedagogy	3	2
Basic Professional Studies(51 ECTS cr)			
4.	Cryptology and cyber security	1	3
5.	Markup languages	1	3
6.	Distributed Software Systems Design	2	3
7.	Object-oriented CASE technologies	2	3
8.	Distributed object technologies	2	3
9.	Advanced methods of software development	3	3
10.	Information technology analysis	3	2
11.	Python programming	1	2
12.	Neural networks	2	3
13.	Parallel programming technologies	2, 3	4
14.	C# programming	1	3
15.	Intelligent data processing	2	3
16.	Unix/Linux administration	3	3
17.	Machine learning	3	3
18.	Computer Modeling and Simulation for Engineers	1	4
19.	ASP.NET programming	2	3
20.	Social Network Game Development	3	3
21.	Management of high performance computer systems	2	3
Professional Studies (15 ECTS cr)			
22.	Java programming	2	2
23.	Human-computer interface design	3	3
24.	Web programming	1	2
25.	Database technologies	1	5
26.	Advanced DMBS technologies	2	3
Elective Professional Studies (total 6 ECTS cr)			
27.	Geographical information systems	3	3
28.	Mobile programming		
29.	Logical programming	3	3
30.	Functional programming		
Practice and Scientific Research(30 ECTS cr)			
31.	Teaching and technological practice	2	6
32.	Industrial practice, research project	4	24
Final Certification(9 ECTS cr)			
33.	Master's thesis and seminar	4	9