

Standard Master program in Mathematics
(Mathematical Foundations of Computer Science)

(Dated October 29th, 2015)

The total minimum required number of credits:	64 credits
- General courses (required):	07credits
- Fundamental and core courses:	39 credits
+ Required:	18 credits
+ Elective:	21/42 credits
- Master thesis:	18 credits

Available curriculum

	Code	Subjects	Credits	Credit hours			Prerequisite
				<i>Lecture</i>	<i>Practice</i>	<i>Self-study</i>	
I	General courses		7				
1	PHI5001	<i>Philosophy</i>	3	30	15		
2	ENG5001	<i>General English</i>	4	30	30		
II	Fundamental and core courses		39				
II.1.	Required		18				
3	ENG6001	<i>English for academic Purposes</i>	3	45			
4	MAT6082	<i>Advanced Machine Learning</i>	3	25	10	10	
5	MAT6083	<i>Advanced Topics in Computer Science</i>	3	25	10	10	
6	MAT6087	<i>Natural Language Processing</i>	3	25	10	10	
7	MAT6080	<i>Advanced Database Systems</i>	3	25	10	10	

	Code	Subjects	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
8	MAT6081	<i>Analysis of Algorithms</i>	3	25	10	10	
II.2.	Elective		21/42				
9	MAT6091	<i>Distributed Systems</i>	3	25	10	10	
10	MAT6085	<i>Advanced Cryptography and Data Security</i>	3	25	10	10	
11	MAT6088	<i>Advanced Topics in Artificial Intelligence</i>	3	25	10	10	
12	MAT6084	<i>Computational Complexity</i>	3	25	10	10	
13	MAT6086	<i>Advanced Topics in Discrete Mathematics and Applications</i>	3	25	10	10	
14	MAT6135	<i>Graph Theory and Applications</i>	3	25	10	10	
15	MAT6024	<i>Multivariate statistical analysis</i>	3	30	0	15	MAT 6007
16	MAT6035	<i>Monte-Carlo methods in multivariate numerical analysis</i>	3	35	10		
17	MAT6089	<i>Advanced Computer Networks and Services</i>	3	25	10	10	
18	MAT6136	<i>Special Topics in Network Security</i>	3	25	10	10	
19	MAT6092	<i>Cloud Computing</i>	3	25	10	10	
20	MAT6093	<i>Advanced Topics in Software Development and Programming Languages</i>	3	25	10	10	
21	MAT6137	<i>Computer Vision</i>	3	25	10	10	
22	MAT6007	<i>Selected topics in Linear algebra</i>	3	45			
III	Master Thesis		18				
23	MAT6149	Thesis	18				

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				<i>Lecture</i>	<i>Practice</i>	<i>Self-study</i>	
	Total		64				