

Faculty of Applied Informatics and Mathematics									
Computer Science and Econometrics - Big data analytics: second level, graduate									
Sem.	Course name	The number of hours in the semester					ECTS points		
		Σ	L.	Ex.	Lab.	Proj.	Σ	ECTS	Σ
1	Mathematical Economics	60	30	30			330	5	30
	Microeconometrics	45	15		30			5	
	Multidimensional Data Analysis	45	30		15			4	
	Software Engineering	45	15		30			4	
	Computer Networks	45	15		30			4	
	Modeling and optimization of business processes	30	15		15			3	
	VBA Advanced Programming/ Advanced Programming in Java [*]	30			30			3	
Second Foreign Language	30		30			2			
2	Dynamic Econometrics	45	15		30		375	4	30
	Operational Research – Applications	45	15		30			4	
	Survey Sampling	45	15		30			4	
	Oracle Databases/ Actuarial Methods [*]	45	15		30			4	
	Advanced data exploration techniques for big data	45	15		30			4	
	Facultative Course 1, 2, 3	90	90					6	
	Second Foreign Language	30		30				2	
Master Seminar	30		30			2			
3	Theory of Forecasting and Simulations	60	30		30		375	5	30
	Basics of financial engineering	45	15		30			4	
	Management Information Systems	45	15		30			4	
	Processing massive datasets	45	15		30			4	
	Project management	45	15		30			4	
	Intellectual property management	15	15					1	
	Facultative Course 4, 5, 6	90	90					6	
Master Seminar	30		30			2			
4	Statistical Analysis in the Market Research	30			30		210	2	30
	Event history analysis	45	15		30			2	
	Selected issues in sociology and psychology	45	30	15				3	
	Business ethics	30	15	15				1	
	Master Seminar	30		30				2	
	Master Thesis	30				30		20	
Total:		1290	540	210	510	30	1290	120	120
[*] optional									
Specialization Big Data Analytics is focused mainly on methods of analysis of the massive datasets. Within this specialization the students will get acquainted with the technologies used for storing, processing and analyzing large data sets and with other quantitative methods of economic analysis, the computer science tools and their practical application. The students will acquire practical skills in building analytical solutions on Big Data platforms. They will become familiar with distributed and parallel processing systems. They will learn how to use basic tools to visualize large data sets.									