

Master's Programme Curriculum
Field of study: **Data Science and Business Analytics**

Academic year 2019/2020

25.03.201

No	Course code	Course name	Course type		year				Total Hours/ECTS Credits	Form of credit
					I		II			
					1	2	3	4		
A General Courses										
1		OGUN (elective from University offer, humanistic profile)	general classes	hours		30	30		60	Credit
				ECTS		3	3		6	
<i>Total of hours in the group of courses</i>					0	30	30	0	60	
<i>ECTS of credits in the group of courses</i>					0	3	3	0	6	
B Core courses										
2	2400-DS1AMI	Applied Microeconomics	lecture	hours	45				45	written exam
				ECTS	5				5	
3	2400-DS1AMA	Applied Macroeconomics	lecture	hours	45				45	written exam
				ECTS	5				5	
4	2400-DS1AE	Advanced Econometrics	lecture lab	hours		30			60	written exam
						30				
				ECTS		6			6	
5	2400-DS2AF	Applied Finance	lecture lab	hours			30		45	written exam
				hours			15			
				ECTS			5		5	
<i>Total of hours in the group of courses</i>					90	60	45	0	195	
<i>ECTS of credits in the group of courses</i>					10	6	5	0	21	
C Field -of study courses										
6	2400-DS1R	R: intro / data cleaning and imputation R / basics of visualisation	lab	hours	15				15	written exam
				ECTS	3				3	
7	2400-DS1SQL	Python and SQL: intro / SQL platforms	lab	hours	30				30	Credit
				ECTS	4				4	
8	2400-DS1AL	Algorithms for Data Science	lecture lab	hours		30			45	written exam
				hours		15				
				ECTS		6			6	
9	2400-DS1ST	Statistics and Exploratory Data Analysis	lab	hours	30				30	Credit
				ECTS	5				5	
10	2400-DS1DS	Introduction to Data Science	lecture	hours	15				15	written exam
				ECTS	3				3	
11	2400-DS1UL	Unsupervised Learning	lab	hours	30				30	Credit
				ECTS	3				3	
12	2400-DS1WSMS	Webscraping and Social Media Scraping	lab	hours		15			15	Credit
				ECTS		3			3	
13	2400-DS1APR	Advanced Programming in R	lab	hours		15			15	written exam
				ECTS		5			5	
14	2400-DS1ML1	Machine Learning 1: classification m	lab	hours		30			30	Credit
				ECTS		4			4	
15	2400-DS2AV	Advanced Visualisation in R	lab	hours			30		30	Credit
				ECTS			6		6	
16	2400-DS2TMS	Text Mining and Social Media Mining	lab	hours			30		30	written exam
				ECTS			4		4	
17	2400-DS2BDA	Big Data Analytics	lab	hours			15		15	Credit
				ECTS			2		2	
18	2400-DS2ML2	Machine Learning 2: predictive models, deep learning, neuron network	lab	hours			30		30	Credit
				ECTS			4		4	
19	2400-DS2RR	Reproducible Research	lab	hours			30		30	written exam
				ECTS			4		4	
20	2400-DS2WWEF	Elective course (economics or finance)	discussion in lab	hours			30		30	Credit
				ECTS			3		3	
21	2400-DS2WWIT	Elective course (IT tools)	lab	hours			30		30	Credit
				ECTS			3		3	
22	2400-DS2WWQM	Elective course (quantitative methods)	discussion in lab	hours			60		60	Credit
				ECTS			6		6	
<i>Total of hours in the group of courses</i>					hours 120	105	105	150	480	
<i>ECTS of credits in the group of courses</i>					ECTS 18	18	16	16	68	

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					I		II			
					1	2	3	4		
D Soft skills courses										
23	2400-DS1CA	Communication and Autopresentation	discussion	hours	30				30	written exam
				ECTS	2				2	
24	2400-DS2NEG	Negotiations	discussion	hours			30		30	written exam
				ECTS			3		3	
25	2400-DS2UB	Understanding Business	lecture	hours				30	30	Credit
				ECTS				3	3	
				<i>Total of hours in the group of courses</i>	hours	30	0	30	30	90
				<i>ECTS of credits in the group of courses</i>	ECTS	2	0	3	3	8
D Master Thesis Seminar										
26	2400-SU2TS....	Master Thesis Seminar	seminar	hours		30	30	30	90	Credit
				ECTS		3	3	3	9	
27		Preparation of the thesis for the diploma examination	own work	hours		0	0	0	0	
				ECTS				8	8	
				<i>Total of hours in the group of courses</i>	hours	0	30	30	30	90
				<i>ECTS of credits in the group of courses</i>	ECTS	0	3	3	11	17
				Total of hours	hours	240	225	240	210	915
				TOTAL of ECTS	ECTS	30	30	30	30	120

Only for those students, who did not complete course during the first degree

Occupational Safety and Health (OSH)	godz.	4	ECTS	0,5
Intellectual Property Protection	godz.	6	ECTS	0,5