

PLAN OF FULL-TIME STUDIES

Degree course: **DATA ENGINEERING - second-cycle course**

Course delivery method: **full-time course**

Recruitment in the academic year 2022/2023

Duration: 3 semesters

University of Zielona Góra

Faculty of Mathematics, Computer Science and Econometrics

No.	COURSE NAME	Hours per semester	ECTS	Form of assignment	SEMESTER 1								SEMESTER 2						SEMESTER 3										
					Form of classes						Form of assignment	ECTS	Form of classes						Form of assignment	ECTS									
					L	C	Lab	P	S	Pra			L	C	Lab	P	S	Pra			L	C	Lab	P	S	Pra			
Compulsory subjects module (general, basic and course)	English 1	30	2	O			30				O	2																	
	English 2	30	2	E										30					E	2									
	Operations Research and Decision Analysis	60	8	EOO	30	15		15			EOO	8																	
	Data Security	60	6	EO	30		30				EO	6																	
	Big Data - Models, Tools, Data Processing	60	7	EO									30		30					EO	7								
	Representative Methods	60	7	EO	30		30				EO	7																	
	Python for Data Analysts	30	4	OO	15		15				OO	4																	
	Machine Learning in Python	60	6	EO									30		30					EO	6								
	Diploma Seminar 1	60	5	O													60				O	5							
	Diploma Seminar 2	60	10	Z																		60	Z	10					
	Monographic Lecture	30	3	O	30						O	3																	
Specialty - Modelling and Data Analysis	Multidimensional Data Analysis	60	5	EO																	30	30				EO	5		
	Text Analysis and Reporting	45	3	OO																	15	30				OO	3		
	Methods and Tools for Data Processing with R	60	5	OO								30		30						OO	5								
	Specialist Seminar 1	30	5	O												30				O	5								
	Specialist Seminar 2	30	5	Z																		30			Z	5			
Specialty - Data Exploration Systems	Data Warehouse	60	5	EO								30		30						EO	5								
	Basics of Cloud Computing for WEB Application	60	5	OO																	30	30				OO	5		
	Specialist Seminar 1	30	5	O												30				O	5								
	Specialist Seminar 2	30	5	Z																		30			Z	5			
	Practical Applications of Data Mining Systems	45	3	OO																	15	30				OO	3		
Specialty - Business Analytics	Decision Analysis and Decision Theory	60	5	EOO								30	15		15					EOO	5								
	Multimedia in Business	45	3	OO																	30			15		OO	3		
	Specialist Seminar 1	30	5	O												30				O	5								
	Specialist Seminar 2	30	5	Z																		30			Z	5			
	Business Intelligence Systems	60	5	OO																	30		30			OO	5		

Compulsory subjects module	540	60	6 E	270	3 E	30	210	3	20	60	0 E	10
Specialty - Modelling and Data Analysis	225	23	1 E	0	0 E	0	90	0	10	135	1 E	13
Specialty - Data Exploration Systems	225	23	1 E	0	0 E	0	90	1	10	135	0 E	13
Specialty - Business Analytics	225	23	1 E	0	0 E	0	90	1	10	135	0 E	13
Practices	0	0										
Total (specialty - Modelling and Data Analysis)	765	83	7 E	270	3 E	30	300	3 E	30	195	1 E	23

Total (specialty - Data Exploration Systems)	765	83	7 E	270	3 E	30	300	4 E	30	195	0 E	23
Total (specialty - Business Analytics)	765	83	7 E	270	3 E	30	300	4 E	30	195	0 E	23
Total without practices			765									

Additional subjects offered for degree course: DATA ENGINEERING

No.	COURSE NAME	SEMESTER 1							SEMESTER 2							SEMESTER 3																	
		Form of classes						Form of assignment	ECTS	Form of classes						Form of assignment	ECTS	Form of classes						Form of assignment	ECTS								
		L	C	Lab	P	S	Pra			L	C	Lab	P	S	Pra			L	C	Lab	P	S	Pra										
ADDITIONAL	Multidimensional Data Analysis																							EO	5								
	Decision Analysis and Decision Theory									30	15				15									EOO	5								
	Text Analysis and Reporting																					15				OO	3						
	LaTeX																									O	2						
	Data Warehouse														30		30									EO	5						
	Methods and Tools for Data Processing with R														30		30									OO	5						
	Multimedia in Business																								30		15		OO	3			
	Quantum Computing																									30		30		OO	5		
	Basics of Cloud Computing for WEB Application																									30		30		OO	5		
	Specialist Seminar 1																												30		O	5	
	Specialist Seminar 2																												30		Z	5	
	Business Intelligence Systems																										30		30		OO	5	
	Practical Applications of Data Mining Systems																										15		30		OO	3	
HUMANITIES	English for Specific Purposes																											30				O	3
	Practical Stylistics																											30				O	3
SOCIAL	Pedagogy 2																											30				O	2
	Psychology 2																											30				O	2

Recommended:

Resolution No. 17 of the Mathematics Discipline Council of 02 March 2022

Approved by Faculty Education Council at the Faculty of Mathematics, Computer Science and Econometrics:

Resolution no 2 of 03 March 2022