

PLAN OF FULL-TIME STUDIES

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

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

Recruitment in the academic year 2024/2025

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
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	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	O															45					O	3
	Methods and Tools for Data Processing	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
Total (specialty - Business analytics)	765	83	7 E

270	3 E	30	300	4 E	30	195	0 E	23
270	3 E	30	300	4 E	30	195	0 E	23

Total without practices	765	83
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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																			30		30					EO	5
	Decision Analysis and Decision Theory								30	15			15				EOO	5										
	Text Analysis and Reporting																					45					O	3
	LaTeX																					30					O	2
	Data Warehouse								30			30					EO	5										
	Methods and Tools for Data Processing								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. 16 of the Mathematics Discipline Council of 08 March 2023

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

Resolution no 1 of 09 March 2023