

Faculty of Economic Sciences, University of Warsaw

Master's Programme Curriculum

Field of study: **Data Science and Business Analytics** - part-time studies

Academic year 2026/2027

Only for those students, who did not complete course during the first degree (obligation to complete in the first year):

Occupational Safety and Health (OSH) (there is a possibility of using credits received within the last five years at selected UW faculties)	hours	4	ECTS	0,5
Intellectual Property Protection	hours	6	ECTS	0,5

No	Course name	Course type	hours / ECTS	year				Total Hours/ECTS Credits	Form of credit	
				I		II				
				1	2	3	4			
A General Courses										
1	General elective course (OGUN) humanistic profile	Lecture/Seminar 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	Applied Microeconomics	Lecture	hours	45					45	Exam
			ECTS	5					5	
3	Applied Macroeconomics	Lecture Practical classes	hours	30 15					45	Exam
			ECTS	5					5	
4	Advanced Econometrics	Lecture Practical classes	hours		30 30				60	Exam
			ECTS		6				6	
5	Applied Finance	Lecture Practical classes	hours			30 15			45	Exam
			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	R: intro / data cleaning and imputation R / basics of visualisation	Practical classes	hours	30					30	Exam
			ECTS	3					3	
7	Python and SQL: intro / SQL platforms	Practical classes	hours	30					30	Test/Project
			ECTS	4					4	
8	Algorithms for Data Science	Lecture	hours		30				45	Exam
		Practical classes	hours		15					
			ECTS		6			6		
9	Statistics and Exploratory Data Analysis	Practical classes	hours	30					30	Exam/Project
			ECTS	5					5	
10	Introduction to Data Science	Lecture	hours	15					15	Exam
			ECTS	3					3	
11	Unsupervised Learning	Practical classes	hours	30					30	Project
			ECTS	3					3	
12	Webscraping and Social Media Scraping	Practical classes	hours		15				15	Exam/Project
			ECTS		3				3	
13	Advanced Programming in R	Practical classes	hours		30				30	Exam
			ECTS		5				5	
14	Machine Learning 1: classification methods	Practical classes	hours		30				30	Credit
			ECTS		4				4	
15	Advanced Visualisation in R	Practical classes	hours			30			30	Project
			ECTS			6			6	
16	Text Mining and Social Media Mining	Practical classes	hours			30			30	Test/Project
			ECTS			4			4	
17	Big Data Analytics	Practical classes	hours			15			15	Credit
			ECTS			2			2	
18	Machine Learning 2: predictive models, deep learning, neural network	Practical classes	hours			30			30	Project
			ECTS			4			4	
19	Reproducible Research	Practical classes	hours				30		30	Project
			ECTS				4		4	
20	Elective course (economics and finance)	Seminar classes	hours				30		30	Credit
			ECTS				3		3	
21	Elective course (IT tools)	Practical classes	hours				30		30	Credit
			ECTS				3		3	
22	Elective course (quantitative methods)	Seminar classes	hours				60		60	Credit
			ECTS				6		6	
<i>Total of hours in the group of courses</i>			hours	135	120	105	150		510	
<i>ECTS of credits in the group of courses</i>			ECTS	18	18	16	16		68	
D Soft skills courses										
23	Communication and Autopresentation	Seminar classes	hours	30					30	Credit
			ECTS	2					2	
24	Negotiations	Seminar classes	hours			30			30	Exam
			ECTS			3			3	
25	Understanding Business	Lecture	hours				30		30	Project
			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	Diploma Seminar A/B/C	Seminar	hours		30	30	30		90	Credit
			ECTS		3	3	11		17	
<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	255	240	240	210		945	
TOTAL of ECTS			ECTS	30	30	30	30		120	