

**TRANSCRIPT OF RECORDS**  
**ECTS - EUROPEAN CREDIT TRANSFER SYSTEM**  
**ERASMUS +**  
**ACADEMIC YEAR 2024/2025, SEMESTER: winter**

<b>NAME OF SENDING INSTITUTION:</b> UNIVERSIDAD DE ALICANTE <b>ECTS departmental coordinator:</b> Jose Garcia Rodriguez
<b>NAME OF STUDENT:</b> Andrés De Lamo Álvaro <b>Date and place of birth:</b> 15.12.2004 Novelda (sex) : Male <b>Study period at the host institution:</b> from: 01.10.2024 to: 23.02.2025
<b>NAME OF RECEIVING INSTITUTION:</b> University of Silesia in Katowice Faculty/Department of: Faculty of Science and Technology/ Institute of Computer Science ECTS departmental coordinator: dr hab. Beata Zielosko, dr hab. Małgorzata Przybyła-Kasperek Tel.: +4832 3689758, +4832 3689756 e-mail box: beata.zielosko@us.edu.pl, malgorzata.przybyla-kasperek@us.edu.pl

Course Unit code (1)	Title of the course unit	Duration of course unit (2)	Local grade (3)	ECTS grade (4)	ECTS credits (5)
	DATA ANALYSIS IN BUSINESS	1S	BDB	A	4
	MONOGRAPHIC LECTURE - COMBINATORIAL MACHINE LEARNING	1S	DST	E	2
	MANAGING IT PROJECTS AND TEAMS	1S	BDB	A	2
	MATHEMATICAL MODELING OF OPTIMIZATION PROBLEMS	1S	BDB	A	3
	CLUSTER ANALYSIS ALGORITHMS IN APPLICATIONS	1S	BDB	A	4
	SCRIPTING LANGUAGES IN DATA ANALYSIS	1S	BDB	A	4
	DECISION AND ASSOCIATION RULES IN KNOWLEDGE DATA DISCOVERY	1S	+DB	B	4
					<b>Total: 23</b>

(1) (2) (3) (4) (5) see explanation on back page

Diploma/degree awarded: .....

Date	Signature of registrar/dean/administration officer	Stamp of institution:
26.02.2025 r		

**UNIWERSYTET ŚLĄSKI**  
**W KATOWICACH**  
Dziekanat Wydziału  
Nauk Ścisłych i Technicznych  
41-200 Sosnowiec, ul. Będzińska 39

**PRODZIEKAN**  
ds. Studenckich i Kształcenia  
Wydziału Nauk Ścisłych i Technicznych  
dr Joanna Maszybrocka, prof. UŚ  
-2-

**NB : This document is not valid without the signature of the registrar/dean/administration officer and the official stamp of the institution.**

**(1) Course unit code:**

Refer to the ECTS information Package

**(2) Duration of course unit:**

Y = 1 full academic year

1S = 1 semester

1T = 1 term/trimester

2S = 2 semesters

$2T = 2$  terms/trimesters

### (3) Description of the institutional grading system:

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(4) ECTS grading scale:

ECTS Grade	% of successful students normally achieving the grade	Definition
<b>A</b>	10	EXCELLENT - outstanding performance with only minor errors
<b>B</b>	25	VERY GOOD - above the average standard but with some errors
<b>C</b>	30	GOOD - generally sound work with a number of notable errors
<b>D</b>	25	SATISFACTORY - fair but with significant shortcomings
<b>E</b>	10	SUFFICIENT - performance meets the minimum criteria
<b>FX</b>	-	FAIL - some more work required before the credit can be awarded
<b>F</b>	-	FAIL - considerable further work is required

**(5) ECTS credits:**

1 full academic year = 60 credits

1 semester = 30 credits

1 term/trimester = 20 credits