Prowadzący	Dr hab. Radosław Mącik, prof. UMCS	
Oferta PJO*	TAK / NIE**	
Oferta PJOE*	TAK / NIE**	
Kierunek, rok, stopień dla PJO	Zarządzanie/Ekonomia Ist. II/III rok	
Semestr roku 2021/2022	zimowy / letni**	

^{*} PJO – przedmiot w języku obcym dla studentów polskich / PJOE – przedmiot w języku obcym dla studentów Erasmus+

BASIC INFORMATION ABOUT THE SUBJECT (INDEPENDENT OF THE CYCLE)

Module name	Data Visualisation			
Erasmus code				
ISCED code				
Language of instruction	English			
Website	https://www.umcs.pl/en/courses-in-english,21103.htm			
	(dla PJOE)			
Prerequisites	Statistics (basic course)			
ECTS points hour equivalents	Contact hours (work with an academic teacher): 15			
	Total number of hours with an academic teacher: 15			
	Number of ECTS points with an academic teacher: 2			
	Non-contact hours (students' own work): 15			
	Total number of non-contact hours: 15			
	Number of ECTS points for non-contact hours: 1			
	Total number of ECTS points for the module: 3			
Educational outcomes verification	Assignments, discussion			
methods				
Description	The module covers the knowledge in the area of data visualisation. The subject is			
	taught on introductory level. The primary goal is to provide to the students			
	knowledge and skills to choose and prepare proper data visualisation in form of			
	graphs and infographics. Classes integrate lectures and practical assignments into			
	one curriculum. Basic knowledge and skills in statistics is required, no serious math			
	is used, graphical skills are welcome.			
Reading list	1. Claus O. Wilke, Fundamentals of Data Visualization, O'Reilly Media, Inc.,			
	2018.			
	2. Jacques Bertin, Semiology of Graphics: Diagrams, Networks, Esri Press,			
	2010			
Educational outcomes	KNOWLEDGE			
	Knowledge about visualization types			
	2. Knowledge about graphs construction			
	3. Knowledge about infographics design			
	SKILLS			
	Ability to choose proper visualisation type			
	2. Ability to design proper graphs			
	3. Ability to design simple infographics			
	ATTITUDES			
	1. Critical thinking			
	2. Conforming aesthetics rules			
Practice	n/a			

^{**} zostawić właściwe

INFORMATION ABOUT CLASSES IN THE CYCLE

Website	https://www.umcs.pl/en/courses-in-english,21103.htm		
	(dla PJOE)		
Educational outcomes verification methods	Assignments, discussion		
Comments	-		
Reading list	1.	Claus O. Wilke, Fundamentals of Data Visualization,	
		O'Reilly Media, Inc., 2018.	
	2.	Jacques Bertin, Semiology of Graphics: Diagrams,	
		Networks, Esri Press, 2010	
Educational outcomes	KNOWLEDGE		
	1.	Knowledge about visualization types	
	2.	Knowledge about graphs construction	
	3.	Knowledge about infographics design	
	SKILLS		
	1.	Ability to choose proper visualisation type	
	2.	Ability to design proper graphs	
	3.	Ability to design simple infographics	
	ATTITUDES		
	1.	Critical thinking	
	2.	Conforming aesthetics rules	
A list of topics	1.	From data to visualization. Basic rules and tools	
	2.	Visualisation of numbers and indicators	
	3.	Visualisation of structures and other quantitative	
		data	
	4.	Spatial data visualization	
	5.	Visualisation of textual data	
	6.	Infographics – design principles and tools	
	7.	Infographics – practice of visual communication	
Teaching methods	Informative lecture with examples, assignments, discussion,		
	problem solving		
Assessment methods	Attendance, activity during class, assignments		