1.	Field of study	Computer Science
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2019/2020 (summer term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

Module: Intelligent Data-driven Systems

Module code: 08-IN-ISI-S2-TiWO

1. Number of the ECTS credits: 2

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
K_8	The student understands the necessity of self-learning ando developing IT skills with the use of modern teaching techniques	K_K01 K_U05	1 2
U_4	The Student is able to use current BI tools , design, develop and implement dashboards that suits certain needs	K_W08 K_W21	3 4
U_5	The Student is able to design and develop dashboards, using a wide range of of methods: statistical, data mining and artificial intelligence. Student is also able to make appropraite visual analytics design (graphical design, chart type, fact sheets.	K_U10 K_W08	2 2
U_6	The Student is able to choose appropriate software and tools for dashboards creation for certain needs, is able to describe user needs with the use of user stories, and use them to design data flow and data presentation	K_W08 K_W14	3 1
U_7	The Student is able to load data to dashboard from local and remote data sources	K_W08	3
W_1	The student knows the idea of BI systems, their application and tools for their creation. Knows the rules of its usage, rules of dashboards design taking into acount pronciples of data visualization, storytelling and reports design.	K_W08 K_W19	4 3
W_2	The student is aware of importance of supporting processes and business decisions and tuning dashboards to user needs	K_W08	3
W_3	The student knows tha basis of statistical analyses, chart types, AI algorithms and data mining approach.	K_W08	3

3. Module description

Description	During classes and assignments student gains knowledge, competncies and skills necessary for dashboards designing and developing for the purpose od decission support in the enterprise. During classes student acquaints the principles and approaches allowing to create dashboards with different tools.

Prerequisites	

4. Assessment of the learning outcomes of the module			
code	**type**	**description**	**learning outcomes of the module**
TiWO -w_1	Scored final project, project presentation and defence	Designing and developing data-driven project with dashboard interface.	K_8, U_4, U_5, U_6, U_7, W_1, W_2, W_3

5. Forms of teaching						
code	**form of teaching**			**required hours of student's own work**		**assessment of the learning outcomes of the module**
	type	**description (including teaching methods)**	**number of hours**	**description**	**number of hours**	
TiWO -fs_1	laboratory classes	Recall and completion general knowledge concerning statistical analyses, artificial intelligence and data mining. Labs in a form of a workshop with gradually increasing difficulty level, with collaterally introduced additional theoretical informations. Basic info about user stories. Pointing the specific needs of business problems. Analysing and discussing issues appearing during project. Knowledge transfer with the support of distance-learning system (Moodle)	30	Self-study, reading additional resources, scripting, hands-on with tools, preparing reports and essays, final project design and development.	30	TiWO -w_1