1.	**Field of study**	**Computer Science**
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2021/2022 (summer term), 2022/2023 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	part-time

Module: Systemy wspomagania decyzji

Module code: W4-IN-N2-20-F-SWD

1. Number of the ECTS credits: 4

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
M_001	The student has basic knowledge of decision support systems.	K_K04 K_U01 K_U05 K_U09 K_U10 K_W02 K_W09	1 1 1 1 1 1 1
M_002	The student has basic knowledge in the field of utility theory, the application of deterministic (Hurwicz, Laplace) and non-deterministic criteria (e.g. max. Expected utility) in decision support systems.	K_U01 K_U05 K_U09 K_W02 K_W05	1 1 1 1 1
M_003	The student has basic knowledge of Bayesian networks and their applications in supported decisions.	K_U05 K_W01	1 1
M_004	The student has basic knowledge of time series prediction as part of the decision support system.	K_U01 K_W02	1 1
M_005	The student is able to construct decision support systems on the Genie platform based on ordinary and dynamic Bayesian networks, can implement the Java decision support system using the SMILE library.	K_U01 K_U05	1 1

		K_U08 K_U09 K_U10	1 1 1
M_006	he student is able to construct complex decision support systems implemented using the KNIME package, including time series prediction.	K_U01 K_U05 K_U08 K_U09 K_U10	1 1 1 1 1

3. Module description	
Description	The aim of the course is to prepare students for the design and implementation of decision support systems. In addition to the theoretical foundations, the student gains the ability to implement practical systems supporting decisions in the fields of banking, commerce and other.
Prerequisites	

4. Assessment of the learning outcomes of the module

code	type	description	learning outcomes of the module
W_001	Solving decision problems.	Solution of three theoretical tasks, also of a computational nature.	M_001, M_002, M_003
W_002	Design and implementation of a decision support system.	Implementation of the decision support system using the selected platform: 1) Genie / SMILE 2) KNIME	M_004, M_005, M_006

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	
Z_001	lecture	Lecture in form of the slides presentation.	15	Study of lecture notes, compulsory and supplementary literature.	15	W_001, W_002
Z_002	laboratory classes	During classes, the lecturer presents and discusses examples of decision support systems implemented in Genie, QGenie and KNIME. Students independently develop the systems indicated by the teacher. students implement two decision support systems on the Genie/SMILE and KNIME toolkits.	30	Students implement two decision support systems based on the GENIE / SMILE and KNIME toolkits.	60	W_001, W_002