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

Module: Computer simulations

Module code: W4-INA-S2-20-1-SK

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 skills for creating simulation models.	K_U01 K_U06 K_U08	1 1 1
M_002	The student knows various computer simulation techniques.	K_U08 K_W02	1 1
M_003	The student can implement the concepts in designing simulation experiments.	K_K04 K_U02 K_U03 K_U04 K_U08 K_U09	1 1 1 1 1 1

3. Module description

Description	The module aim is to give students the knowledge necessary for creating simulation models and conducting simulation experiments. The presented topics are related to various computer simulation techniques, simulation software, and simulators' applications in the design and optimisation of technical systems. Students will gain the abilities to build models with the use of simulation environments.
Prerequisites	

4. Assessment of the learning outcomes of the module			
code	**type**	**description**	**learning outcomes of the module**
W_001	Exam	The two-hour test comprises closed and open-ended questions.	M_001, M_002, M_003
W_002	Reports	The students present reports and discuss developed projects.	M_001, M_002, M_003

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	The lectures are supported by multimedia presentations and e-learning	30	The students are required to self-study the literature and materials presented during the lectures.	20	W_001
Z_002	laboratory classes	The assignments have the form of design projects with the use of simulation environments.	30	The students complete the project assignments and prepare the presentations.	40	W_001, W_002