1.	Field of study	Computer Science
2.	Academic year of entry	2017/2018 (summer term), 2018/2019 (summer term)
3.	Level of qualifications/degree	second-cycle studies
4.	Degree profile	general academic
5.	Mode of study	full-time

Module: RAD programming environments

Module code: 08-IN-ISI-S2-PwŚRAD

1. Number of the ECTS credits: 3

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
PwŚRAD _U_4	Can create event-driven applications using chosen environments.	K_2_A_I_U14	4
PwŚRAD _U_5	Is able to program using a library and stock solutions available in chosen environments.	K_2_A_I_U14 K_2_A_I_U16	3 2
PwŚRAD _U_6	Can test and activate applications using tools available in chosen RAD environments.	K_2_A_I_U03	3
PwŚRAD _U_7	Is able to identify current trends in applications designing and creating. Understands need to develop his competences in the field of programming.	K_2_A_I_U05	4
PwŚRAD _U_8	Can independently identify problems, search for and select methods of solving them, create specifications of project tasks in a systematic way.	K_2_A_I_U01 K_2_A_I_U03	4 4
PwŚRAD _W_1	Knows the concept of programming and creating applications with use of RAD environment, understands principles of application structure and organization, knows basic environments of RAD type.	K_2_A_I_W05 K_2_A_I_W06	1 4
PwŚRAD _W_2	Possesses knowledge about event-driven programming, architecture and principles of operation of applications using GUI, knows basic prototype libraries and environments.	K_2_A_I_W06 K_2_A_I_W12 K_2_A_I_W15 K_2_A_I_W16	4 2 2 2
PwŚRAD _W_3	Has knowledge about principles and methods of building, testing and activating of applications in the chosen RAD environments.	K_2_A_I_W06 K_2_A_I_W14	4 4

3. Module description	
Description	The aim of education is preparing the students to design and program applications using modern RAD environments. Within the frames of studies, the students will get acquainted with chosen environments of this type, will gain practical skills of using them, will get to know the concept of event-driven programming, will learn to create and program applications using modern, graphic oriented user interfaces. During performing individual project tasks , the students will develop their competences in the field of identification of programming problems, methods of looking for their solutions, their analysis and selection of the most convenient answers. The students will get familiar with principles of identification and choosing licensing scheme of the tools used.
Prerequisites	

4. Assessment of the learning outcomes of the module

code	type	description	learning outcomes of the module
PwŚRAD _w_1	Control test	Written test in the form of practical tasks solution.	PwŚRAD _U_4, PwŚRAD _W_1, PwŚRAD _W_2
PwŚRAD _w_2	Credit test	Credit test checking knowledge and skills in the field of programming in RAD environments.	PwŚRAD _U_5, PwŚRAD _W_2, PwŚRAD _W_3
PwŚRAD _w_3	Indyviduak project	Reports containing project specification together with the attached program.	PwŚRAD _U_4, PwŚRAD _U_5, PwŚRAD _U_6, PwŚRAD _U_7, PwŚRAD _U_8

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	
PwŚRAD _fs _1	lecture	Presenting educational content in the verbal form, , with use of content visualization. Discussion over the presented content, analysis of complex material and chosen practical examples.	30	Deepened analysis of lecture materials published in the subject website.	5	PwŚRAD _w_1
PwŚRAD _fs _2	laboratory classes	Practical preparation of students to create applications in RAD environments, project tasks execution, discussing problems, perfecting in methods of the chosen environments use.	30	Deepened analysis of application examples and topics discussed during laboratory classes. Project elaboration, program realization, elaboration of specification, test report	25	PwŚRAD _w_2, PwŚRAD _w_3