

Bialystok University of Technology									
Field of study	Computer Science							Degree level and programme type	Engineer's degree part-time programme
Specialization/ diploma path	---							Study profile	academic
Course name	Programming in JavaScript							Course code	INZ1PJS
								Course type	elective
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	5,6
	20				10			No. of ECTS credits	5
Entry requirements									
Course objectives	The aim of this course is to develop programming skills in JavaScript.								
Course content	Introduction to HTML5 and CSS3. The JavaScript language. DOM manipulation. Using the Canvas element. JQuery library. Phaser as an example of a library for programming games. Frameworks to create rich client applications: Backbone, Ember, Angular, Knockout. Working in Node.js environment .								
Teaching methods	lecture problem, programming,								
Assessment method	Evaluation of selected programming exercises carried out in the classroom and two major exercises carried out partly outside the classroom. Test.								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
LO1	can program in JavaScript.							K_W06 K_U05	
LO2	can use the HTML DOM using jQuery library.							K_W06 K_U05 K_U11	
LO3	can program interactive applications with graphics and animations in the <canvas> element.							K_W06 K_W11 K_U05 K_U06 K_U12 K_U13 K_K03	
LO4	can design and implement a web application using the node.js environment and selected javascript frameworks.							K_W06 K_W09 K_U05 K_U06 K_U09 K_U11 K_U12 K_U13 K_K03	
Symbol of learning outcome	Methods of assessing the learning outcomes							Type of tuition during which the outcome is assessed	
LO1	exercises during the classes, project, test								
LO2	exercises during the classes, project								
LO3	team project								
LO4	team project								
Student workload (in hours)							No. of hours		
Calculation	1 - Participation in lectures -							20	
	2 - Participation in the workshop specialist -							10	
	3 - Preparing for classes -							30	
	4 - Execution of project tasks -							63	
	5 - Participation in consultations -							2	
TOTAL:							125		
Quantitative indicators							HOURS	No. of ECTS credits	
Student workload - activities that require direct teacher participation							32 (1)+(2)+(5)	1.3	
Student workload - practical activities							103 (4)+(3)+(2)	4.1	
Basic references	1. N. Bevacqua, Practical modern JavaScript : dive into ES6 and the future of JavaScript, 2017. 2. Kirupa Chinnathambi, JavaScript : absolute beginner's guide, 2017. 3. L. Lemay, R. Colburn, J. KyrninHTML, Sams teach yourself HTML, CSS and JavaScript web publishing in one hour a day, 2017. 4. N. C. Zakas, Understanding ECMAScript 6 : the definitive guide for JavaScript developers, 2017.								
Supplementary references	1. O. Filipova, Learning Vue.js 2, 2018. 2. G. Kunz, Mastering Angular 2 components, 2017. 3. S. Stefanov, React up a. running: building web applications, 2017. 4. M. MacDonald, HTML 5 : the missing manual, 2014.								
Organisational unit conducting the course	Software Department							Date of issuing the programme	
Author of the programme	dr inż. Marek Tabędzki							April 5, 2019	

L - lecture, C - classes, LC - laboratory classes, P - project, SW - specialization workshop, FW - field work, S - seminar