

Subject card

Subject name and code	Frontend Development, PG_00204164						
Field of study	Informatics						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2027/2028		
Education level	Bachelor's studies	Subject group			Obligatory subject group in the field of study Subject group related to practical vocational preparation		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	3	ECTS credits			3.0		
Learning profile	practical	Assessment form			credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Jakub Neumann				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours		Self-study	SUM	
	Number of study hours	30	0.0		45.0	75	
Subject objectives	The aim of the course is to familiarize students with modern technologies, techniques and tools intended for creating the client part of a web application, built in the Single Page Application (SPA) model and based on the JavaScript language.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[INFPL3_U04] is able to use the acquired knowledge when creating, running and testing programs using dedicated tools and design patterns	is able to create, run and test web applications according to the SPA pattern in an environment of dedicated tools on the example of the React framework			[SU2] presentation/project/paper/report [SU5] implementation of a problem task		
	[INFPL3_K02] is ready to recognize the importance of knowledge in solving cognitive problems and practical and seeking opinions experts in case of difficulties with independent problem solving	using concepts specific to the area of developing SPA-type web applications, he can precisely formulate questions to deepen his understanding of the subject of web applications			[SK1] oral statement/conversation/discussion [SK5] implementation of a problem task		
	[INFPL3_U09] is able to - in accordance with the given specification - design and implement IT system	the student is able to build a SPA-type application using the React framework according to the given specifications in the form of laboratory tasks			[SU2] presentation/project/paper/report [SU6] demonstration of practical skills		
	[INFPL3_W07] knows and understands facts and methods to an advanced degree in the field of designing, developing, testing, implementing and maintaining web applications and their security; applies this knowledge in practical projects, creating web applications and preparing their functional and performance tests	using the example of developing an SPS web application using the React framework, the student acquires knowledge in the field of design, development, testing, implementation and maintenance of web applications and their security			[SW2] presentation/project/paper/report [SW5] implementation of a problem task		

Subject contents	The lectures will discuss the model of a web application developed according to the Single Page Application pattern, using the example of the React framework. Particular emphasis will be placed on the issues of application state management (a solution comparable to the redux library), communication with the backend (API) and its performance		
Prerequisites and co-requisites	Passed course Języki programowania 2		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	tests	51.0%	60.0%
	project	51.0%	40.0%
Recommended reading	Basic literature	Technical documentation of the React framework: https://react.dev/	
	Supplementary literature	React w działaniu. Tworzenie aplikacji internetowych. Wydanie II, aut. Stoyan Stefanov, ISBN 9788383220406	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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