

Subject card

Subject name and code	Frontend development, PG_00155301						
Field of study	Informatics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
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		
	[INFL3_U04] can create, run and test 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		
	[INFL3_K02] can precisely formulate questions to deepen his/ her own understanding of a given topic or to find missing elements of reasoning		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		
	[INFL3_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		
	[INFL3_W07] has knowledge of designing, developing, testing, implementing and maintaining web applications and their security		using the example of developing an SPS web application using the Race 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
		51.0%	60.0%
		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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