University of Gdańsk

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 [SU4] test/exam - oral or written
[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	[SK2] presentation/project/paper/ report [SK4] test/exam - oral or written
[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 [SU4] test/exam - oral or written
[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 Race framework, the student acquires knowledge in the field of design, development, testing, implementation and maintenance of web applications and their security	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report

<table>
<tr><td>Subject contents</td><td>The lectures will discuss the model of a web application developed according to the Single Page Appliaction 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</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Passed course Języki programowania 2</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>tests</td><td>51.0%</td><td>60.0%</td></tr>
<tr><td>project</td><td>51.0%</td><td>40.0%</td></tr>
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<tr><td>Recommended reading</td><td>
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<tr><td>Basic literature</td><td>Technical documentation of the React framework: https://react.dev/</td></tr>
<tr><td>Supplementary literature</td><td>React w działaniu. Tworzenie aplikacji internetowych. Wydanie II, aut. Stoyan Stefanov, ISBN 9788383220406</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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