



Subject card

Subject name and code	Programming of Internet Applications, PG_00067284						
Field of study	Informatics						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2029/2030		
Education level	first-cycle studies	Subject group			Optional subject group Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	4	Language of instruction			Polish		
Semester of study	7	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Algorithms and Systems Modelling -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krzysztof Manuszewski					
	Teachers	dr inż. Krzysztof Manuszewski					
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		3.0		17.0	50
Subject objectives	The major goal is to prepare students to design and implement modern, responsive and scalable WWW and mobile applications.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W44] knows and understands, to an advanced extent, architecture, design principles and methods of hardware and software support for local and distributed information systems, including computing systems, databases, computer networks and information applications, as well as the principles of human-computer interaction, the operation and evaluation criteria of data processing, storage and transfer methods, including computational algorithms, artificial intelligence and data mining as well as standards and methods of IT systems administration, monitoring of processes and robustness to undesirable phenomena and activities	Understands the principles and conditions related to typical web application architectures	[SW1] Assessment of factual knowledge
	[K6_U03] can design, according to required specifications, and make a simple device, facility, system or carry out a process, specific to the field of study, using suitable methods, techniques, tools and materials, following engineering standards and norms, applying technologies specific to the field of study and experience gained in the professional engineering environment	Is able to design and implement both server and client side of system	[SU1] Assessment of task fulfilment
	[K6_W04] knows and understands, to an advanced extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, and organisation of systems using computers or such devices	Is able to assessment and modify the efficiency of WWW system. Is able to use modern tools and patterns for purpose of development of WWW and mobile solutions	[SW1] Assessment of factual knowledge
	[K6_W03] knows and understands, to an advanced extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum	Understands the concepts behind the modularization of web solutions and is able to apply them in practice for both client-side and server-side components.	[SW1] Assessment of factual knowledge
Subject contents	Course content – lecture JavaScript - native mechanism vs. object oriented mechanisms, emulation of other known mechanisms. Modern approach to client side code in JS, Unit tests, Libraries and frameworks (jQuery/ExtJS). Possible alternatives for Javascript Tools and solutions, E.g.Typescript, CoffeeScript. Implementation of server side logic. MVC pattern. (ASP.Net MVC). Javascript on the server side: NodeJS. Hosted applications.		
	Course content – laboratory JavaScript - native mechanism vs. object oriented mechanisms, emulation of other known mechanisms. Modern approach to client side code in JS, Unit tests, Libraries and frameworks (jQuery/ExtJS). Possible alternatives for Javascript Tools and solutions, E.g.Typescript, CoffeeScript. Implementation of server side logic. MVC pattern. (ASP.Net MVC). Javascript on the server side: NodeJS.		
Prerequisites and co-requisites	C#, knowledge in area of HTML, HTTP		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		60.0%	60.0%
		40.0%	40.0%

Recommended reading	Basic literature	JavaScript: The Good Parts , D. Crockford <i>Pro ASP.NET MVC Framework</i> , A. Freeman, S. Sanderson
	Supplementary literature	MSDN
	eResources addresses	
Example issues/ example questions/ tasks being completed	Implementation of a web application using Razor Pages Implementation of a web application using Vue.js Automation of web application testing	
Practical activities within the subject	Not applicable	

Document generated electronically. Does not require a seal or signature.