



## Subject card

Subject name and code	Programming of Internet Applications, PG_00047983						
Field of study	Informatics						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2025/2026		
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		3.0		
Learning profile	general academic profile		Assessment form		exam		
Conducting unit	Department of Algorithms and Systems Modelling -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Krzysztof Manuszewski				
	Teachers		dr inż. Krzysztof Manuszewski				
Lesson types and methods of instruction	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		42.0	75
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_U41] can produce, test or evaluate software using modern programming platforms, tools, languages and paradigms of different levels, as well as use software packages supporting scientific and research processes as well as business decision-making processes and teamwork	knows and is able to use communication protocols.	[SU1] Assessment of task fulfilment
	[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_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	knows communication protocols.	[SW1] Assessment of factual knowledge
	[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_W42] 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 cooperation with computers and computer-aided teamwork	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
Subject contents	<p>JavaScript - native mechanism vs. object oriented mechanisms, emulation of other known mechanisms</p> <p>Modern approach to client side code in JS, Unit tests, Libraries and frameworks (jQuery/ExtJS)</p> <p>Possible alternatives for Javascript – Tools and solutions, E.g.Typescript, CoffeeScript</p> <p>Implementation of server side logic. MVC pattern. (ASP.Net MVC)</p> <p>Javascript on the server side: NodeJS</p> <p>Application hosted in browser (SilverLight)</p>		
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	<a href="#">JavaScript: The Good Parts</a> , D. Crockford  <i>Pro ASP.NET MVC 3 Framework</i> , A. Freeman, S. Sanderson  Silverlight 5 in Action, Pete Brown	
	Supplementary literature	MSDN	
	eResources addresses	Adresy na platformie eNauczanie:	
	Example issues/ example questions/ tasks being completed		
Work placement	Not applicable		