



Subject card

Subject name and code	Network applications, PG_00031969						
Field of study	Technical Physics						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
Education level	second-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	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Theoretical Physics and Quantum Information -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Bartosz Reichel					
	Teachers	dr inż. Bartosz Reichel					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
		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	45		6.0		49.0	100
Subject objectives	Knowledge of network technology used in the creation of applications for both server and client side.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_U02] Has enhanced knowledge of programming languages and can use software packages.	Distinguishes between the scripting programming language and programming lang			[SU1] Assessment of task fulfilment		
	[K7_W08] Has the knowledge of ethical aspects of teaching, research and engineering. Knows industrial property rights and copyrights.	Use of legal software. Do not apply your knowledge for illegal purposes (hacking).			[SW2] Assessment of knowledge contained in presentation		
Subject contents	1) What are web/network applications, and in what languages / scripts / platforms can be created 2) review of the most popular platform for creating web applications 3) Framework, ASP.NET MVC, together with the MVC elements 4) PHP scripting language 5) Review of frameworks for PHP 6) Create a web application using the UDP/TCP transport layer, implementing own application-layer protocols.						
Prerequisites and co-requisites	no						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Practical exercise	50.0%			100.0%		
Recommended reading	Basic literature	S.Orłowski, C#. Tworzenie aplikacji sieciowych. 101 gotowych projektów, Helion D.E. Comer , Sieci komputerowe i intersieci, WNT, Warszawa, 2003 A. Sopala, Pisanie programów internetowych, Mikom, Warszawa, 2000					
	Supplementary literature	None					
	eResources addresses	Adresy na platformie eNauzanie: Aplikacje Sieciowe 2023 - Moodle ID: 33359 https://enauzanie.pg.edu.pl/moodle/course/view.php?id=33359					
Example issues/ example questions/ tasks being completed	- Client-server application based on datagram / connection - Application: blocking and non-blocking base on TCP - WebService using REST architectural style						

