



Subject card

Subject name and code	Programming of Internet Applications, PG_00046079						
Field of study	Electrical Engineering						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
Education level	second-cycle studies		Subject group				
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Electrified Transportation -> Faculty of Electrical and Control Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Andrzej Wilk				
	Teachers		dr hab. inż. Andrzej Wilk				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	0.0	10.0	0.0	0.0	20
	E-learning hours included: 0.0						
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=21035						
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	20		5.0		25.0	50
Subject objectives	The course objective is to create ASP.NET Core MVC web applications in Microsoft Visual Studio.The course covers: Using C# to program controllers, action methods, data models, and data analysis. Using HTML and Razor tags to create view files. Using Cascading Style Sheet Language - CSS to define "frontend" styles.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U02] is able to prepare and deliver a short oral presentation on a selected technical topic		Develops a data model in an ASP.NET Core MVC application		[SU1] Assessment of task fulfilment		
	[K7_W06] has in-depth knowledge of industrial electronics, microprocessor control systems, programmable logic systems and printed circuit design and prototyping computer-aided prototyping		Not applicable		[SW3] Assessment of knowledge contained in written work and projects		
	[K7_U03] is able to obtain information from literature, databases and other sources, also in English, draw conclusions, formulate and fully justify opinions. substantiate opinions; is able to identify directions for further learning and implement the process of self-education		Analyzes the communication model between MVC application classes		[SU3] Assessment of ability to use knowledge gained from the subject		
	[K7_W02] has an in-depth and structured knowledge of electrical measurements electrical measurements, the methods and equipment used for electrical measurements of non-electrical quantities, he/she knows the principles of testing operation tests of electrical equipment, has a structured knowledge of electricity quality issues		Implements the electrical circuit concept in a web application		[SW3] Assessment of knowledge contained in written work and projects		

Subject contents	Lecture: C# programming language - basics. Object-oriented programming basics. Classes, interfaces, objects, encapsulation, inheritance, polymorphism. Delegates, anonymous methods, lambda expressions. Collection classes. Core MVC application structure. Defining controllers, data models and views. Communication between MVC application classes. Action methods in HttpsGET and HttpsPOST mode. Developing view files - HTML and Razor. Defining cascading style sheets - CSS.		
	Laboratory: Developing an ASP.NET Core MVC application implementing a passive RLC filter.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	30% lecture, 70% laboratory	60.0%	100.0%
Recommended reading	Basic literature	1. John Sharp: Microsoft Visual C# 2013. Microsoft Press. 2. Mugilan T. S. Ragupathi, Anuraj Parameswaran : Learning ASP.NET Core MVC, Packed Publishing, 2016	
	Supplementary literature	Mark J. Price : C# 11 i .NET 7 dla programistów aplikacji wieloplatformowych. Twórz aplikacje, witryny WWW oraz serwisy sieciowe za pomocą ASP.NET Core 7, Blazor i EF Core 7, Helion, 2022.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	1. What is the purpose of a controller in an MVC application?2. The mechanism for transferring data between a controller and a view file.		
Work placement	Not applicable		

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