



Subject card

Subject name and code	Programming of Internet Applications, PG_00069141						
Field of study	Electrical Engineering, Automation, Robotics and Control Systems						
Date of commencement of studies	February 2025		Academic year of realisation of subject		2025/2026		
Education level	second-cycle studies		Subject group				
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		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Electrified Transportation -> Faculty of Electrical and Control Engineering -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Andrzej Wilk				
	Teachers						
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		5.0		25.0	75
Subject objectives	The main objective of the course is to teach students the basics of developing web applications working in the operating system environment: Linux, macOS, Windows. The partial objectives included in the course are: learning the basics of object-oriented programming in C#, especially encapsulation and inheritance; learning about interfaces, delegates, events and structures; learning about HTML elements and cascading style sheets (CSS); understanding the ASP.NET Core MVC architecture; developing model and view controllers; learning about the principles of routing, model binding, and verification.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W02] has a structured knowledge of the application of information systems to improve the reliability, efficiency, speed and mobility of control and management systems		Implements ASP.NET MVC applications to perform engineering tasks		[SW3] Assessment of knowledge contained in written work and projects		
	[K7_U02] is able to prepare and deliver a short oral presentation on a selected technical topic		Prepares a presentation on a selected topic		[SU2] Assessment of ability to analyse information		
	[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		Uses information from literature, databases and other sources. Implements a self-education process		[SU4] Assessment of ability to use methods and tools		
Subject contents	1. Object-oriented programming using the managed language C#: classes and their resources (fields, properties, constructors and methods). 2. Encapsulation and inheritance. 3. Interfaces, delegates, events, structures. 4. HTML markup language 5. Cascading style sheet (CSS). 6. ASP.NET Core Model-View-Controller (MVC) architectural pattern. 7. Developing controllers, models and views. 8. Routing in an ASP.NET Core MVC application. 9. Model binding and verification.						

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Laboratory	60.0%	60.0%
	Lecture	60.0%	40.0%
Recommended reading	Basic literature	Pieter van der Westhuizen: Bootstrap for ASP.NET MVC. Click here to enter text. - Second Edition, Wydawnictwo: Packt Publishing	
	Supplementary literature	Łukasz Sosna: Visual Studio 2022, C# i .NET. Programowanie kontrolek, Wydawnictwo Helion	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1. What is the inheritance in object oriented programming? 2. Discuss the architecture of an ASP.NET Core MVC web application.		
Work placement	Not applicable		

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