University of Gdańsk

Subject card

Subject name and code	.NET Technologies, PG_00179319		
Field of study	Informatics		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2025/2026
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study 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	3	Language of instruction	Polish
Semester of study	5	ECTS credits	6.0
Learning profile	academic	Assessment form	exam
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr Tomasz Borzyszkowski	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	30.0	0.0	0.0	60

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	60	0.0	0.0	60

Subject objectives

The subject is intended to:
- introduce students to the object-oriented features of the C# language
- introduction to practical use of Visual Studio for software development and
- the basics of the ASP MVC library.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[INFL3_W08] has knowledge of network technologies, including basic communication protocols, security and construction of network applications	The student knows the basic constructs of the C# language and ASP MVC technology as well as basic programming paradigms	[SW2] presentation/project/paper/ report
[INFL3_U07] uses advanced functionalities of operating systems, especially related to network aspects	The student is able to construct computer programs and Internet portals in .Net technology using the Visual Studio tool.	[SU2] presentation/project/paper/ report

Subject contents

1. Introduction to Visual Studio and the C# language.
2. Object-oriented programming principles in C#: defining classes and objects, hiding information in C# language classes, access modifiers, partial classes, comparing properties of structures and classes, object constructors and destructors, initialising structures, inheritance and overriding methods.
3. Programming constructs: definition of properties and indexers, static components, overloading operators.
4. Advanced techniques: attributes and reflection mechanism, delegation and event handling, serialisation.
5. Introduction to web development in ASP technology.
6. ASP MVC technology.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3">Knowledge of the basics of object-oriented programming and relational databases.</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>project presentation, observation of student work</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">S. C. Perry. C# i .NET. Helion, 2006

S. Walther. ASP .NET 2.0. Księga eksperta. Helion, 2008</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">Resources available on the platform https://learn.microsoft.com/pl-pl/dotnet/</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3"></td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
</table>

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