DESCRIPTION OF THE COURSE OF STUDY

Course code	**0719-2ID-F53-TN**	
Name of the course in	Polish	**Technologie .NET**
	English	**.NET Technologies**

1. LOCATION OF THE COURSE OF STUDY within the system of studies

1.1. Field of study	Data engineering
1.2. Mode of study	Full-time studies
1.3. Level of study	First-cycle engineering program
1.4. Profile of study*	General academic profile
1.5. Person/s preparing the course description	Mariusz Marzec
1.6. Contact	mmarzec@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE course of study

2.1. Language of instruction	English
2.2. Prerequisites*	Programmer environment, introduction to programming, object-oriented programming

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. **Form of classes**		Lectures, classes, project
3.2. **Place of classes**		Classes in the teaching room at the UJK
3.3. **Form of assessment**		lectures – pass with a grade laboratory exercises – pass with a grade project – pass
3.4. **Teaching methods**		lecture, computer lab classes
3.5. **Bibliography**	**Required reading**	1. A. Troelsen, Język C# 2010 i platforma .NET 4, PWN 2011 2. J. Liberty, C#. Programowanie, Helion, 2012 3. A. Troelsen, Język C# 6.0 i platforma .NET 4.6, PWN 2017 4. T. Magennis, Linq to objects w C# 4.0, Helion 2012, 5. M.J. Price, C# 10 i .NET 6 dla programistów..., Helion, 2023
	Further reading	Selected resources - with the approval of the lecturer

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

4.1. Course objectives *(including form of classes)*

Lecture:

C1. Learning the basic technologies used to design applications on the .NET platform

Laboratory exercises:

C2. Implementing software on the .NET platform.

4.2. Detailed syllabus *(including form of classes)*

Lectures

1. Covers an overview of .NET Framework libraries and classes, a discussion of methods for accessing data in ADO.NET technology: .NET Framework data providers, provider-independent code, connection layer, connectionless layer, a discussion of the LINQ concept, object serialization rules, an introduction to XML and XAML technologies, and the principles building web applications in ASP.NET technology: basic and server controls, website creation, discussion of application documentation technology, distributed application building technology, web services, as well as discussion of the Micro Framework platform and its applications, and SPOT technology.

(including e-learning)

1. additional materials available online

Classes

1. includes exercises on the principles of creating applications using .NET platform libraries, the principles of data access in ADO.NET, LINQ, object serialization, building applications in ASP.NET, and the use of application development documentation technologies (RUP, MSF).

(including e-learning)

1. additional materials available online

Project

1. Students work individually on projects/applications, implementing the issues discussed in class.

(including e-learning) 1. additional materials available online

4.3 Intended learning outcomes

Code	A student, who passed the course	Relation to learning outcomes
within the scope of **KNOWLEDGE:**		
W01	lists and describes the features of the .NET platform	ID1A_W11
W02	characterizes the libraries of the .NET platform and its basic technologies: ADO.NET, ASP.NET, LINQ	ID1A_W11
W03	knows and applies the principles of application development on the .NET platform	ID1A_W11
W04	describes the basic tools supporting design work on the .NET platform	ID1A_W11
within the scope of **ABILITIES:**		
U01	designs interactive applications on the .NET platform using ADO.NET, ASP.NET, and LINQ technologies	ID1A_U07 ID1A_U08 ID1A_U13
U02	uses basic IT tools supporting the design of user applications on the .NET platform	ID1A_U07 ID1A_U08 ID1A_U13
U03	is open to learning new programming	ID1A_U07 ID1A_U08 ID1A_U13
within the scope of **SOCIAL COMPETENCE:**		
K01	is aware of the role of engineers in providing the public with competent information on programming using the .NET platform	ID1A_K03 ID1A_K04

4.4. **Methods of assessment of the intended learning outcomes**

Teaching outcomes *(code)*	Method of assessment (+/-)														
	Test*			Project*			Self-study*			Group work*			Effort in class*		
	Form of classes			*Form of classes*			*Form of classes*			*Form of classes*			*Form of classes*		
	L	*C*	*P*	*L*	*C*	*P*	*L*	*C*	*P*	*L*	*C*	*P*	*L*	*C*	*P*
W01		+											+	+	
W02		+											+	+	
W03		+				+									
W04						+									
U01						+		+			+				
U02						+		+			+				
U03						+		+			+				
K01						+								+	

**delete as appropriate*

4.5. **Criteria of assessment of the intended learning outcomes**

Form of classes	Grade	Criterion of assessment
Lecture (L) (including e-learning)	**3**	achieving <50-60) % of the requirements applied in the assessment methods
	3,5	achieving <61-70) % of the requirements applied in the assessment methods
	4	achieving <71-80) % of the requirements applied in the assessment methods
	4,5	achieving <81-90) % of the requirements applied in the assessment methods
	5	achieving <91-100) % of the requirements applied in the assessment methods
Classes (C)* (including e-learning)	**3**	achieving <50-60) % of the requirements applied in the assessment methods
	3,5	achieving <61-70) % of the requirements applied in the assessment methods
	4	achieving <71-80) % of the requirements applied in the assessment methods
	4,5	achieving <81-90) % of the requirements applied in the assessment methods

	5	achieving <91-100) % of the requirements applied in the assessment methods
Project	**Pass**	achieving a minimum of 50% of the requirements applied in the assessment methods
	Fail	achieving less than 50% of the requirements applied in the assessment methods

5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	**Student's workload**	
	Full-time studies	**Extramural studies**
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	***75***	
*Participation in lectures**	***30***	
*Participation in classes, seminars, laboratories**	***30***	
*Others (Project)**	***15***	
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	***50***	
*Preparation for the lecture**	***10***	
*Preparation for the classes, seminars, laboratories**	***20***	
*Preparation for the exam/test**	***10***	
*Gathering materials for the project/Internet query**	***10***	
TOTAL NUMBER OF HOURS	***125***	
ECTS credits for the course of study	**5**	

****delete as appropriate***

Accepted for execution *(date and legible signatures of the teachers running the course in the given academic year)*

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