# POZNAN UNIVERSITY OF TECHNOLOGY



### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Computer programming 1 [S1IZarz1>PROG1]

Course			
Field of study Engineering Management		Year/Semester 1/2	
Area of study (specialization) –		Profile of study general academic	>
Level of study first-cycle		Course offered in Polish	
Form of study full-time		Requirements compulsory	
Number of hours			
Lecture 15	Laboratory classe 30	es	Other (e.g. online) 0
Tutorials 0	Projects/seminar 0	S	
Number of credit points 3,00			
Coordinators		Lecturers	
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#### **Prerequisites**

Basic knowledge of any programming language.

#### Course objective

Strengthening basic programming skills based on the C # language.

#### Course-related learning outcomes

Knowledge:

The student describes object-oriented programming language, its properties, and applications [P6S\_WG\_08].

The student defines event handling procedures in the context of programming [P6S\_WG\_08]. The student names functions, control statements, operators, and selected data types used in programming [P6S\_WG\_08].

Skills:

The student plans and conducts experiments, including measurements and computer simulations, to test programs [P6S\_UW\_09].

The student performs interpretation of experiment results and draws conclusions from the conducted measurements and computer simulations [P6S\_UW\_09].

The student prepares and creates functions and control instructions in programs [P6S\_UO\_01]. The student utilizes declarations, operators, and selected data types in programs [P6S\_UW\_09, P6S\_UO\_01].

Social competences:

The student recognizes cause-and-effect relationships in achieving programming goals and prioritizes the importance of alternative tasks in the process of program creation [P6S\_KK\_02].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The lecture grade is based on the percentage of the colloquium. Questions and tasks checking understanding of the issues. Passing threshold - 50%.

The grade from the laboratory is given as an average of the grades of individual tasks performed during classes. The assessment takes into account the correctness and completeness of the results obtained.

### Programme content

Object-oriented programming language, object properties, event handling procedures, use and creation of functions, control instructions and use of declarations, operators and selected data types.

### **Course topics**

none

### **Teaching methods**

Lectures: informative lecture, problem lecture, seminar lecture, case method. Laboratories: laboratory (experiment) method, workshop method.

### **Bibliography**

Basic:

Michaelis M., C# 7.0. Kompletny przewodnik dla praktyków. Wydanie VI, Helion 2019 Lis M., C#. Praktyczny kurs. Wydanie III, Helion 2016

#### Additional:

Jamro M., Struktury danych i algorytmy w języku C#. Projektowanie efektywnych aplikacji, Helion 2019

### Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00