COURSE DESCRIPTION CARD - SYLLABUS

Course name
Object oriented programming [S1Elmob1>PO2]

Course

Field of study
Electromobility

Year/Semester
2/3

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
0

Laboratory classes
30

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

3,00

Coordinators

dr hab. inż. Leszek Kasprzyk prof. PP
leszek.kasprzyk@put.poznan.pl

Lecturers

Prerequisites

Basic knowledge of computer science and programming. Ability to think abstractly.

Course objective

Understanding the theoretical and practical issues of high-level programming with elements of object oriented programming, acquiring the ability to create applications in the environment of Microsoft Visual Studio (in C #)

Course-related learning outcomes

Knowledge:
Knows the principles of high-level programming. Has knowledge of object-oriented programming useful when creating technical applications.

Skills:
Is able to use programming tools using elements of object-oriented programming.

Social competences:

Can independently search for information in literature and the Internet, also in foreign languages.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Skills acquired as part of the laboratory are verified on the basis of the final test and individual activity during the classes. Passing threshold: 50% of points. Obtaining additional points for activity during classes (especially for: discussing additional aspects of the issue; effectiveness of applying the acquired knowledge when solving a given problem; ability to cooperate as part of a team practically performing a specific task in the laboratory; comments related to improving teaching materials; diligence)

Programme content

Laboratory: Implementation in the Visual Studio C # Express Edition environment of the issues presented in practical object-oriented programs using the following programming elements: object type declarations, fields and methods, readonly fields, static and ordinary object variables, constructors and destructors, properties, method overloading, operator overloads, encapsulation, inheritance, polymorphism and its application, abstract classes and methods, collections, graphic elements, basics of printout creation

Teaching methods

Laboratory: individual work in a computer laboratory, involving the implementation of given functions and computer programs, discussion, demonstrations.

Bibliography

Basic
1. J. Matulewski, Visual C# 2005 Express Edition. Od podstaw, Wyd. Helion, 2006
2. D. Farbaniec, Microsoft Visual Studio 2012 : programowanie w C# Dawid Farbaniec., Wyd. Helion, 2013
3. S. C. Perry, C# i .NET, Wyd. Helion, 2006
4. Trey Nash, Accelerated C# 2010, Apress, 2010
5. R. Elmasri, S. B. Navathe, Wprowadzenie do systemów baz danych, Wyd. Halion, 2005

Additional
1. K. Kuczmarski, Kurs C++, Avocado Software, 2004
2. N.M. Josuttis, C++ Programowanie zorientowane obiektowo, Vademecum Profesjonalisty, Helion 2003
3. Internet

Breakdown of average student's workload

	Hours	ECTS
Total workload	80	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	50	2,00