Module card

I. GENERAL INFORMATION	
THE WITELON STATE UNIVERSITY OF APPLIED SCIENCES IN LEGNICA **DEPARTMENT FACULTY OF TECHNICAL AND ECONOMIC SCIENCE**	
Field	Computer sciences
Module title	Programming basic II (MI.5)
Language of lecture	English
ECTS points	5
Preliminary conditions:	Programming basic I (MI.4)

II. Education aims
1. To get knowledge about object programming approach and programm design   2. To obtain expirience using object programming environment to implement a simple object oriented software.

III. Education outcomes
EF1: Students are able to use object programing language to build a simple aplication   EF2: Students can use a modern programming environment to design object-oriented programming solutions

IV. EDUCATIONAL METHODS
Educational method: Multimedia presentations, computer tools activities.
Assessment methods: Project, obseration during class activities

V. MODULE TYPE AND CONTENTS
- Introdution to object oriented paradigm, recognize some object programming environments   - Object creation and using in programm   - Using methods, their types, arguments, overloading of methods   - Constructors and destructors and their types and using   - Polimorphism and virtuality of methods and functions   - Encapsulation and inheritance, visability of class attributes and the types of access   - Predefined classes in C++ or Java standard libraries   - Templates of classes and using in computer programms   - Dynamic access to objects, FIFO and FILO structures implementation

VII. ECTS POINT BALANCE SHEET - STUDENT'S WORKLOAD	
Category	**Student's workload**
Contact hours	30
Participation in lectures	15
Participation in classes, workshops	15

Exam	-
Independent student's work	95
Preparation for the lecture	25
Preparation for the classes, workshops	60
Preparation for the test	2
Preparation for the exam	
Preparing the project	8
Preparing multimedia presentation	-
Total numer of hours	125
ECTS points	5

VIII. Recommended literature

1. C++ Notes for Professionals book. E-book on https://books.goalkicker.com/CPlusPlusBook/
2. Java Notes for Professionals book. E-book on https://books.goalkicker.com/JavaBook/ ,

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