

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 I (MI.4)
Language of lecture	English
ECTS points	5
Preliminary conditions:	none
II. Education aims	
<ol style="list-style-type: none"> 1. To get knowledge about structure programming using static and dynamic data structures 2. To obtain experience of algorithms translation to programming languages and design a simple computer programming solutions. 	
III. Education outcomes	
EF1: Students are able to use structure programming language to build a simple application EF2: Students can analyze a basic algorithms and computer application written in C/C++ languages.	
IV. EDUCATIONAL METHODS	
Educational method: Multimedia presentations, computer tools activities.	
Assessment methods: Project, observation during class activities	
V. MODULE TYPE AND CONTENTS	
<ul style="list-style-type: none"> - Introduction into programming environment, a program architecture - Basic data types, operations and variables using in computer programming - Condition instructions if-else, switch and their using in programming - Iteration instructions while, do-while, for and their using - Array data structure, implementation of operations on 1- and 2-dimensional arrays - Definition of function, list of arguments, functions invocation - Pointers in programming, pointer arithmetics, memory allocation methods - Using of dynamic structures in programming - Streaming of I/O, using advanced methods 	
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/CBook/>
2. Stephen G. Kochan, Programming in C: A Complete Introduction to the C Programming Language, 3d edition,

Author: Aleksander Klosow, PhD