STUDY MODULE DESCRIPTION FORM

Name of the module/subject			Code
Computer Science			**1011104411011160390**
Field of study	Profile of study (general academic, practical)		Year /Semester
Logistics - Part-time studies - First-cycle	**(brak)**		**1 / 1**
Elective path/specialty	Subject offered in:		Course (compulsory, elective)
-	**Polish**		**obligatory**
Cycle of study:	Form of study (full-time,part-time)		
First-cycle studies	**part-time**		
No. of hours			No. of credits
Lecture: **-** Classes: **-** Laboratory: **14** Project/seminars: **-**			**2**
Status of the course in the study program (Basic, major, other)	(university-wide, from another field)		
(brak)	**(brak)**		
Education areas and fields of science and art			ECTS distribution (number and %)
technical sciences			**2 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Basic knowledge of secondary school.
2	**Skills**	Basic computer literacy.
3	**Social competencies**	Able to work in computer laboratory group.

Assumptions and objectives of the course:

-Students should be made familiar with algorithmic thinking, the ways algorithms are developed and coded in programming languages. They should be able to design and implement simple algorithms in modern development environment. They should be provided with the introduction to computer science disciplines the most relevant to further study of logistics.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Student is able to explain what is an algorithm and how it is converted into a computer program. - [(T1A_W02) K1A_W09]
2. Has a preliminary knowledge of Windows forms GUI interface. - [(T1A_W02) K1A_W10]
3. Is able to characterize shortly parts of computer science important for logistics and operations research. - [(InzA_W05) KInzA_W05]

Skills:

1. Is able to design and analize flowcharts of algorithms and explain how they work. - [T1A_U05 K1A_U05]
2. Is able to generate in Visual Basic a graphical user interface for simple application, and to program simple engineering task. - [(T1A_W02) K1A_W10]
3. Is able to define decision makimng problem in the way appropriate for further computerized solution. - [(T1A_U09) K1A_U09 i (T1A_U14) K1A_U14]

Social competencies:

1. Is aware of computer data security and the interests and rights of their users. - [(T1A_KO2) K1A_K02]

Assessment methods of study outcomes

-Practical programming tests in laboratories.

Course description

-The general knowledge of computer science disciplines relevant to logistics. The notion of algorithm, flowchart and pseudo code. The evolution of programming languages with the emphasis on structural and object oriented languages. Structural control instructions. The GUI objects. Event driven applications.

Basic bibliography:

1. Visual Basic - Microsoft Corporation Programmer's Guides and Manuals
2. The Internet resources for Visual Basic programmers

Additional bibliography:

1. David Harel, Yishai Feldman, Algorithmics: The Spirit of Computing , Springer Verlag 2012
2. Jack Purdum, Visual Basic .NET Primer Plus, SAMS Publishing 2007

Result of average student's workload

Activity	Time (working hours)
1. Attendance and active participation in laboratory exercises	14
2. Preparation for the final credits	14

Student's workload

Source of workload	hours	ECTS
Total workload	28	2
Contact hours	14	1
Practical activities	14	1