

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Computer Science		Code 1011104311011160390
Field of study Logistics - Part-time studies - First-cycle	Profile of study (general academic, practical) general academic	Year /Semester 1 / 1
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: - Classes: - Laboratory: 10 Project/seminars: -		No. of credits 2
Status of the course in the study program (Basic, major, other) other		(university-wide, from another field) university-wide
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 2 100% 2 100%
Responsible for subject / lecturer: dr inż. Aleksander Jurga email: aleksander.jurga@put.poznan.pl tel. +4861 6653388 Faculty of Engineering Management Strzelecka Str. 11, 60-965 Poznań		
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) K1InzA_W05]		
Skills:		
1. Is able to design and analyze 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 making 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_K02) K1A_K02]		
Assessment methods of study outcomes		

<p>-Practical programming tests in laboratories. Formative assessment: a) in the field of laboratory classes: implementation of exercises, practical test on a komputer.</p> <p>Summary: a) in the field of laboratory classes: the total score of the exercises and the result of the test.</p>		
Course description		
<p>Laboratories: Graphical user interface objects.Event-driven applications. Introduction to object-oriented programming with the help of tools for rapid application generation (Visual Studio).</p> <p>Didactic methods: -Work with a book. -Demonstration method. -Laboratory method.</p>		
<p>Basic bibliography:</p> <ol style="list-style-type: none"> Jurga A., Sławińska M., Wybrane aspekty projektowania systemów informacyjnych wspomagających procesy logistyczne, [w:] Gospodarka Magazynowa i Logistyka, 2011. Stallings W., Organizacja i architektura systemu komputerowego, WNT, Warszawa, 2000. Harel D., Rzecz o istocie informatyki. Algorytmika, WNT, Warszawa, 2000. Reichel W., Visual Basic dla studentów : podstawy programowania w Visual Basic 2010, Witkom (Salma Press), Warszawa 2011. Jan Bielecki J., Visual Basic do Windows : programowanie zdarzeniowe, Wyd. PLJ, Warszawa 1991. 		
<p>Additional bibliography:</p> <ol style="list-style-type: none"> Samolej S. i inni, Wprowadzenie do informatyki : skrypt dla studentów kierunków nieinformatycznych na uczelniach technicznych. 1, Architektura komputerów, algorytmika, paradygmaty i języki programowania, Oficyna Wydawnicza Politechniki Rzeszowskiej, Rzeszów, 2014. Avery J., [tł. Garbacz B, Kaczmarek D.], 100 sposobów na Visual Studio, Helion, Gliwice, 2005 		
Result of average student's workload		
Activity	Time (working hours)	
1. Attendance and active participation in laboratory exercises	10	
2. Preparation for the final credits	10	
3. Consultation	2	
4. Literature studying	10	
Student's workload		
Source of workload	hours	ECTS
Total workload	32	2
Contact hours	12	1
Practical activities	10	1