Information sheet for the course
Informatics

University: *Alexander Dubček University of Trenčín*	
Faculty: *Faculty of Social and Economics Relations*	
Course unit code: *VSP4*	**Course unit title:** *Informatics*
Type of course unit: *compulsory*	
Planned types, learning activities and teaching methods: *2 hours of lectures / 2 hours of laboratory practicals per week. 28 hours of lectures / 28 hours of laboratory practicals per week. In-class format.*	
Number of credits: *4*	
Recommended semester: *1st*	
Degree of study: *I.*	
Course prerequisites: *none*	
Assesment methods: *At the beginning of the semester entry test (not judged), which will be used to define difficulty of teaching. During the semester will be evaluated also participation in laboratories and lectures (max. 10 points of the total score). During the semester project will be developed from the practical skills, which will be evaluated partially during the semester (max. 20 points of the total score) and at the end of the semester (max. 40 points of the total score). At the end of the semester it will be test from the theoretical knowledge evaluated max. 30 points min. 18 points of the total evaluation. To obtain evaluation student can get 100 points (60 points from the examination, 30 points from the theoretical part, 10 points for participation).* *A rating not less than 87 points* *B rating not less than 80 points* *C rating not less than 73 points* *D rating not less than 67 points* *E rating not less than 60 points* *Credits shall not be granted to a student who obtains less than 18 points from the test from. Test exam and project from practical skills the student will present orally.*	
Learning outcomes of the course unit: *After the completion of the course, a student will have gained theoretical knowledge in the field of informatics as scientific discipline. The student will know the history and the development of informatics. The student should understand the current options in the area of information and communication technologies which belong to general education. Student should also be able to do in MS Office and have practical skills in this environment, as well as practical skills in Microsoft Visio and utilities Windows environment.*	
Course contents: *1 Organisational instructions during the semester, the organization exercises, LMS system and its use.* *2 Development of informatics, cybernetics. Basic concepts: information, informatics, informatization, information theory, classification of information, characteristics of information, information entropy, and level of informing, redundancy, communication process, pragmatic and semantic content information.* *3 Principles of mathematical logic, Boolean algebra, numerical system, transfer and display numbers.* *4 Algorithms, types of algorithms, classification of algorithms.* *5 Concept of computers, history of computers, computer architecture.* *6 Operating systems, hardware solutions PC, PC components.*	

7 Program appropriations and their use.
8 Theory of data organization and data structure, data operations.
9 Programming, programming languages, their classification and use.
10 The problem, decision-making, modeling, information system as a tool for problem solving.
11 View information, definition of entity-, relational diagrams, data flow diagram, database management systems, database, data protection, sources of danger, integrity, reliability, availability, accountability, elements of IT security, safety analysis.
12 INTERNET, computer viruses and anti-virus protection.
13 Computer networks - Topology of computer networks, ISO - OSI model network communication, computer LAN, MAN, WAN, basic, switching networks. Disadvantages of the current LS, integrated business IS, IS management.

Recommended of required reading:

Kočíková, E.: Informatika pre neinformatikov. TnUAD, Trenčín 2013
Kočíková, E. – Jašková, D. – Janošcová, R.: Základy informatiky I. 1. vyd.. TnUAD, Trenčín 2007
Kočíková, E. – Janošcová, R.: Základy informatiky II. 1. vyd.. TnUAD, Trenčín 2007
Bitto, O.: Microsoft Windows 8, Computer Press. 2012
Břiza, V.: Visio 2003. Grada, 2005
Chajdiak, J.:Štatistika v Exceli. Statis 2013
Čuchran,J.: Digitálne prenosové systémy. STU, Bratislava 2008
Orgoň, M.: Bezpečnosť sietí budúcich generácií. STU, Bratislava 2012
Odborné časopisy PC World, PC Revue, Chip, PC Magazine,...

Language: *Slovak*

Remarks:
Subject is offered in the winter semester of the first year of full-time studies and external studies. This course is mandatory. The number of students in a laboratory group ranges from 20 to 25 students.

Evaluation history:
Total number of students being assessed: *375*

A	B	C	D	E	FX
5.87	13.6	29.07	20.0	21.87	9.6

Lectures: *Ing. Zuzana Križanová, PhD., Ing. Elza Kočíková, PhD.*

Last modification: *15.04.2014*

Supervisor: *doc. Ing. Ján Kútik, CSc.*