

Information sheet for the course Informatics

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of special technology</i>					
Course unit code: <i>ŠST/B/1-21/d</i>			Course unit title: <i>Informatics</i>		
Type of course unit: <i>compulsory</i>					
Planned types, learning activities and teaching methods: <i>2 hours laboratory exercises per wee</i>					
Number of credits: 2					
Recommended semester: <i>1st semester in the 1st year /full-time/ 2st semester in the 1st year /part-time/</i>					
Degree of study: <i>I.</i>					
Course prerequisites: <i>none</i>					
Assessment methods: <i>100% participation in laboratory exercises, the attainment of goals laboratory practice, well-designed two term papers. Twice during the semester written test - credit. In the evaluation of a total of 100 points necessary to obtain the required number of points for the grade classification: A- (92-100), B (83-91), C- (74-82), D (65-73) E (56-64) points.</i>					
Learning outcomes of the course unit: <i>The student will acquire the basics of programming in C in Visual Studio Express as preparation for work in MATLAB. The student will also learn to use office suite Microsoft Office for the preparation of student work, scientific and engineering calculations.</i>					
Course contents: <i>Algorithms and flowcharts - basic signs and principles. Development environment Visual Studio Express. Solving quadratic equations - flowchart. Branching (if statement), finding maxima cycles in C - flowcharts. For cycle, Do cycle, Do-While cycle and command Swich. Fields, Matrixs, sorting. Input/Output operations. Functions, Parameters of functions called value, Reference, Reference and Dereferenciou. Arithmetic of Pointers. Fundamentals of OOP: Classes, Objects, operator Overloading, Inheritance, Polymorphism. MS Word: formatting, styles, automatic generation of contents, indexes, formulas, tables, drawing pictures, etc. MS Excel: formatting charts. MS PowerPoint: transitions and animations in the presentation.</i>					
Recommended of required reading: <i>W. J. ORVIS: Microsoft Excel pro vědce a inženýry, Computer Press, 1996, ISBN 80-85896-49-4. P. HEROUT: Učebnice jazyka C. Kopp, České Budějovice, 2005, ISBN 80-7232-220-6. H. M. DEITEL, P. J. DEITEL: C++ How to program. Pearson Education, Inc., Prentice-Hall, Inc., Upper Saddle River, New Jersey, 2010, ISBN 0-13-611726-0. B. ECKEL: Myslime v jazyku C++. Grada, Praha, 2000, ISBN 80-247-9009-2. B.W. KERNIGHAM, D.M. RITCHIE: The C Programming Language. Prentice-Hall, Inc., 1988, ISBN 0-13-110362-8. HARBISON, S.P., STEELE JR., G.: Referenční příručka jazyka C. Science, Veletiny, 1996, ISBN 80-901475-5-0. SEdgeWICK, R.: Algoritmy v C. Softpress, Praha, 2003, ISBN 80-86497-56-9. MCCONNELL, S.: Dokonalý kód. Umění programování a techniky tvorby software. Computer Press, Brno, 2006, ISBN 80-251-0849-X.</i>					
Language: <i>Slovak</i>					
Remarks: <i>The subject is provided in the winter semester of the first year of full-time study. Subject is required.</i>					
Evaluation history <i>Total number of students being evaluated: 486</i>					
A	B	C	D	E	FX

37,45	30,04	18,72	7,2	473	1,85
Lecturers: <i>Ing. Milan Jus, PhD. instructor</i>					
Last modification: <i>15.4.2014</i>					
Supervisor: <i>prof. Ing. Jiří Balla, CSc., guarantee of the study program "Special Mechanical Engineering Technology"</i>					