ECCC SYLLABUS

MODULE: **CS M1** PROGRAMMING
LEVEL: INTERMEDIATE **(B)**

In the examination of this module includes all aspects of the baseline (A) extended the competencies listed below.

COMPETENCE GROPUP	COMPETENCE WITHIN ECCC STANDRADS
1. Positional numbers system	1.1. Representation of negative numbers in the code additions to two - U2. 1.2. Representation of real numbers as floating point. 1.3. Other positional systems: trinary, quaternary, octal, factorial; conversion of numbers between numerical systems..
2. Types and structures of data	2.1. Data types in the programming languages: Pascal and C + + 2.2. Tables and action on the tables in the languages: Pascal and C + +. 2.3. Indicators and basic operations on indicators in the languages: Pascal and C + +.
3. Structure of program and basics instructions	3.1. Basic instructions in Pascal and C + +. 3.2. Operators in Pascal and C + +. 3.3. Procedures and functions: the sub-division program in Pascal and C + + 3.4. Procedures and recursive functions in Pascal and C + +.
4. Basics counting and operating on texts algorithms	4.1. Search and sort algorithms. 4.2. Some classical algorithms: the prime numbers, calculating the strong rhythm of Euclid's algorithm, Fibonacci series, Newton - Raphson, the sum of the harmonic series. 4.3. Algorithms using iterative and recursive techniques. 4.4. Algorithms that operate on texts. 4.5. Encryption algorithms and modifications to the texts..

Preferred development environment for the realization of the intermediate-level tasks:

- TMT Pascal Lite 3.9 (http://www.frameworkpascal.com)
- Free Pascal 2.x.x (http://www.freepascal.org)
- Dev-C++ 5 Beta 9.2 (4.9.9.2) PL (www.bloodshed.net)

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