ECDL

Computing

Module Summary

This module sets out essential concepts and skills relating to the use of computational thinking and coding to create simple computer programs.

On completion of this module the candidate will be able to:

- Understand key concepts relating to computing and the typical activities involved in creating a program.
- Understand and use computational thinking techniques like problem decomposition, pattern recognition, abstraction and algorithms to analyse a problem and develop solutions.
- Write, test and modify algorithms for a program using flowcharts and pseudocode.
- Understand key principles and terms associated with coding and the importance of well-structured and documented code.
- Understand and use programming constructs like variables, data types, and logic in a program.
- Improve efficiency and functionality by using iteration, conditional statements, procedures and functions, as well as events and commands in a program.
- Test and debug a program and ensure it meets requirements before release.

WHAT ARE THE BENEFITS OF THIS MODULE?

- Covers the key skills and main concepts relating to computational thinking and coding.
- Certifies best practice in computational thinking and coding.
- Introduces concepts and skills that are essential for anyone interested in developing specialised IT skills.
- Assists in developing generic problem solving skills that are useful for everyone.
- Developed with input from subject matter experts and practising computing professionals from around the world. This process ensures the relevance and range of module content.

HOW DO I GET STARTED?

To find out more about this module and to locate your nearest accredited test centre, please visit www.ecdl.org/programmes.

SYLLABUS OUTLINE

CATEGORY	SKILL SET
Computing Terms	• Key Concepts
Computational Thinking Methods	• Problem Analysis • Algorithms
Starting to Code	• Getting Started • Variables and Data Types
Building using Code	• Logic • Iteration • Conditionality • Procedures and Functions • Events and Commands
Test, Debug and Release	• Run, Test and Debug • Release

WHO IS IT FOR?

ECDL Computing is aimed at students aged 12 to 16 years, who wish to start learning about computational thinking and coding. The module is likely to be of interest not only to students who are interested in IT and computing but also to those who wish to develop transversal skills relating to problem solving.

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