



Certification Exam: ICT Fundamentals Essentials Certificate Test

Exam Objectives

The ICT Fundamentals Essentials courseware is written to the following Exam Objectives:

Domain 1: Demonstrate fundamental knowledge of computers and their uses.

- 1.1: Explain computing functions, systems and devices
 - 1.1.1: Define "computer" and explain how computers work.
 - 1.1.2: Describe functions of the computing cycle (i.e. input, processing, output, storage).
 - 1.1.3: Describe uses of computers (i.e. home, school, business).
 - 1.1.4: Identify the main types of computers (i.e. supercomputer, mainframe, microcomputer, notebook, tablet, handheld).
 - 1.1.5: Describe the four parts of a computer (i.e. hardware, software, data, user).
 - 1.1.6: List computer input and output devices (i.e. monitor, printer, projector, speakers, mice, keyboards) and describe their uses.
- 1.2: Explain networking types and uses at home, school and work.
 - 1.2.1: Define "network," and explain network usage (i.e. home, school, work).
 - 1.2.2: Identify types of networks (i.e. LAN, WAN, MAN, VPN, intranet, extranet, the internet).

Domain 2: Explain how the Internet, Web browsers, and Email function and are used to communicate.

- 2.1: Explain how the Internet functions to enable communications (i.e. connection types, domains, servers, techniques).
 - 2.1.1: Define the term "cloud computing" and describe the differences of creating or storing files "in the cloud," or on a physical location.
 - 2.1.2: Define "Internet," and how it enables computers to communicate.
 - 2.1.3: Describe various Internet connection types (e.g., dial-up, cable, DSL, broadband, wireless, fiber-optic).
 - 2.1.4: Describe the differences between the Internet and the World Wide Web.
- 2.2: Explain how Web browsers and Search engines function, communicate and provide information.
 - 2.2.1: Explain how Web browsers function
 - 2.2.2: Use various tools to navigate and access the Web (i.e. hyperlinks, Web page, browsers, "How to Google").
- 2.3: Demonstrate effective and appropriate communication using Email and other technologies.
 - 2.3.1: Define "email" and explain functions and advantages for communicating.
 - 2.3.2: Identify components of email messages (i.e. sender and recipient addresses, subject body, reply, forward, etc.)
 - 2.3.3: Identify various communication tools and explain their purposes (i.e. Twitter, Instagram, Snapchat, etc.).
 - 2.3.4: Explain etiquette and safe practices when using email and other communication platforms.

Domain 3: Demonstrate foundational skills using word processing and spreadsheet applications.

- 3.1: Describe the appropriate purpose of various applications used in cloud computing or physical location implementation.
 - 3.1.1: Describe commonly used word-processing software applications, including benefits and features.
 - 3.1.2: Explain the differences of creating and storing files (any kind) online versus a physical location.
 - 3.1.3: Describe commonly used spreadsheet software applications, including benefits and features.
- 3.2: Explain how to use various word processing application features and functions (i.e. new, open, save, bold, italics, print, font and size, copy, paste, margins, alignment).
 - 3.2.1: Demonstrate how to use common functions in a word processing application (i.e. new file, open file, save, save as, print).
 - 3.2.2: Demonstrate basic document formatting features (i.e. bold, italics, font style and size, page margin, etc.).
- 3.3: Explain how to use various spreadsheet features and functions (i.e. new, open, save, print, font and size, copy, paste, basic calculations, columns, rows, cells, worksheet, workbook).
 - 3.3.1: Explain the purpose of cell, row and column, worksheet and workbook, and describe how they work together in a spreadsheet application.
 - 3.3.2: Demonstrate how to use functions of spreadsheets (i.e. new file, open file, save, save as, print, change font style and size, copy, paste).
 - 3.3.3: Demonstrate proper use of basic calculations in spreadsheets (i.e. SUM, AVG).

Domain 4: : Demonstrate foundational skills of CyberSecurity.

- 4.1: Describe Internet safety practices and risks associated with the Internet.
 - 4.1.1: Describe risks associated with Internet activity (e.g. social media, online gaming, etc.)
 - 4.1.2: Identify ways to reduce risks associated with Internet activity (e.g. social media, online gaming, etc.)
 - 4.1.3: Describe how to prevent dangers such as cyberbullying and identity theft.
- 4.2: Identify ethical and legal issues related to Internet content (e.g. music, videos, photographs, etc.), and how to apply guidelines for copyright and fair use.
 - 4.2.1: Discuss ethical and unethical actions of downloading music, videos or photographs from the Internet.
 - 4.2.2: Discuss legal and illegal actions of downloading music, videos or photographs from the Internet.
 - 4.2.3: Describe rules for copyright and fair use guidelines application for schools and educational purposes.
- 4.3: Describe security issues and how to secure various devices (e.g. mobile phone, tablet, laptop, etc.).
 - 4.3.1: Describe strong password practices.
 - 4.3.2: Identify security issues related to mobile phones (e.g. securing personal information and physical devices)