

ECDL Module 1

Course Outline

Syllabus Version 4

1) GENERAL CONCEPTS

HARDWARE, SOFTWARE, IT

- Hardware
- Software
- Information Technology (IT)

TYPES OF COMPUTER

- What is a mainframe computer?
- What is a PC?
- What is a networked computer?
- What are laptop & palmtop computers?
- What is a Personal Digital Assistant (PDA)?
- Types of computer Mainframe
- Types of computer PC
- Types of computer Networked PC
- Types of computer Laptop
- Types of computer Palmtop
- Types of computer PDA (Personal Digital Assistant)

MAIN PARTS OF A PERSONAL COMPUTER

- The System Unit
- The System (Mother) Board
- The CPU
- Memory (RAM)
- ROM-BIOS
- Serial Port
- Parallel Port
- Universal Serial Bus (USB)
- What are input devices?
- What are output devices?
- What is a peripheral device?
- The Keyboard
- The Mouse
- CD
- DVD Drives
- Floppy disk
- Zip Disc
- Hard (Fixed) Disk
- The Monitor
- Additional items or cards
- Sound cards and speakers
- Modems
- Printers
- Scanners
- Recordable CDs
- Tape backup
- What is PCMCIA?

COMPUTER PERFORMANCE

- Factors affecting performance

CENTRAL PROCESSING UNIT

- The CPU (Central Processing Unit)

MEMORY

- What is computer memory?
- What is RAM?
- What is ROM?
- What is the ROM-BIOS?
- What is flash BIOS?
- What is video (graphics) memory?

INPUT DEVICES

- The Mouse
- The Keyboard
- Tracker Balls
- Scanners
- Touch Pads
- Light Pens
- Joysticks
- Voice input for PCs (microphones)
- Web Cams
- Digital Cameras

OUTPUT DEVICES

- The VDU (computer monitor or screen)
- Flat screen monitors
- Screen size
- Graphics for games
- Computer presentation projection devices
- Different types of printer
- Laser printers
- Colour laser printers
- Inkjet printers
- Dot Matrix printers
- Printer Memory
- Cost of running a printer
- Plotters
- Speakers
- Speech synthesizers

INPUT/OUTPUT DEVICES

- Input/Output devices

STORAGE DEVICES

- Internal hard disks
- External hard disks
- Zip drives
- Jaz drives
- Diskettes (floppy disks)
- CD Disks
- DVD Drives
- Why format a disk?

2) HARDWARE

3) SOFTWARE

TYPES OF SOFTWARE

- What is an Operating System?
- What is an Application Program?
- Why are new versions of software released year after year?

OPERATING SYSTEM SOFTWARE

- What is an Operating System?

APPLICATIONS SOFTWARE

- What is an application program?
- Word processing
- Spreadsheets
- Databases
- Presentation
- Accounts / Payroll
- Web browsing
- Web authoring

GRAPHICAL USER INTERFACE (GUI)

- What is a Graphical User Interface?
- The advantages of using a GUI (Graphical User Interface)

SYSTEMS DEVELOPMENT

- What is systems development?
- What is a systems development cycle?

4) INFORMATION NETWORKS

LAN AND WAN

- What is a LAN (local Area Network)?
- What is a WAN?
- What does client/server mean?
- What is workgroup computing?
- Advantages of workgroup computing
- Disadvantages of workgroup computing

INTRANET, EXTRANET

- What is the difference between the Internet and an Intranet?
- What is the difference between an Intranet and an Extranet?

THE INTERNET

- What is the Internet?
- What is the Internet and how is it useful?
- What is the difference between the World Wide Web (WWW) and the Internet?

THE TELEPHONE NETWORK IN COMPUTING

- How is the telephone line used in computing?

- Where to get help about technical terms
- What is PSTN?
- What is PSDN?
- What is ISDN?
- What is ADSL?
- What is DSL?
- Digital vs. analogue
- Modem
- Baud rate

5) THE USE OF IT IN EVERYDAY LIFE

COMPUTERS AT WORK

- Where computers might be more appropriate than people
- Where people might be more appropriate than computers
- Examples of large scale computer applications in business
- Uses of large scale computers applications within government
- Uses of computer applications within hospitals and the health care system
- Uses of computer applications in education
- What is tele-working?
- Some of the advantages of tele-working
- Some of the disadvantages of tele-working

ELECTRONIC WORLD

- What is email?
- What is E-commerce?
- What is E-banking?
- The process of shopping online
- The advantages of e-commerce
- The disadvantages of e-commerce

6) HEALTH AND SAFETY, ENVIRONMENT

ERGONOMICS

- Good working practices

HEALTH ISSUES

- Using a computer incorrectly can damage your health
- Repetitive Strain Injury (RSI)
- Glare from screens
- Bad posture

PRECAUTIONS

- Make sure that cables are safely secured
- Make sure that power points are not overloaded

THE ENVIRONMENT

- Computers and the environment
- Don't Waste Paper

7) SECURITY

INFORMATION SECURITY

- What is information security?
- Advantages of proactive information security
- Passwords
- The Importance of shutting down your computer
- What is a UPS?
- Electrical surge protection
- Things computers like
- Things to avoid
- What to do if the computer breaks down
- Dealing with security problems
- Responsibilities for dealing with security problems
- Security rights and obligations
- User IDs and passwords?
- Choosing a secure password
- How secure is your software?
- How do you manage data securely?
- How do you dispose of data securely?
- What is visitor control?
- Why do you need to back up your computer?
- Organising your computer for more efficient backups
- Complete vs. incremental backups
- Why you should use 'off-site' storage?
- Beware of 'open files'
- What if your laptop is stolen?
- What if your mobile phone is stolen?

COMPUTER VIRUSES

- What are computer viruses?
- How do viruses infect PCs?

- How to prevent virus damage
- To make a diskette read-only
- To password protect your computer
- How do you protect computers from attack?
- What to do if you discover a virus on your computer
- The limitations of anti virus software
- What is virus disinfecting?
- Anti-virus Precautions

8) COPYRIGHT AND THE LAW

COPYRIGHT

- Software Copyright Issues
- What are site licences?
- Copyright Issues
- How to check a software Product ID
- What is freeware?
- What is shareware?
- What about software which you find on the Internet?
- What is an end-user licence agreement?

DATA PROTECTION LEGISLATION

- Data Protection and Privacy Issues
- Data Protection Legislation