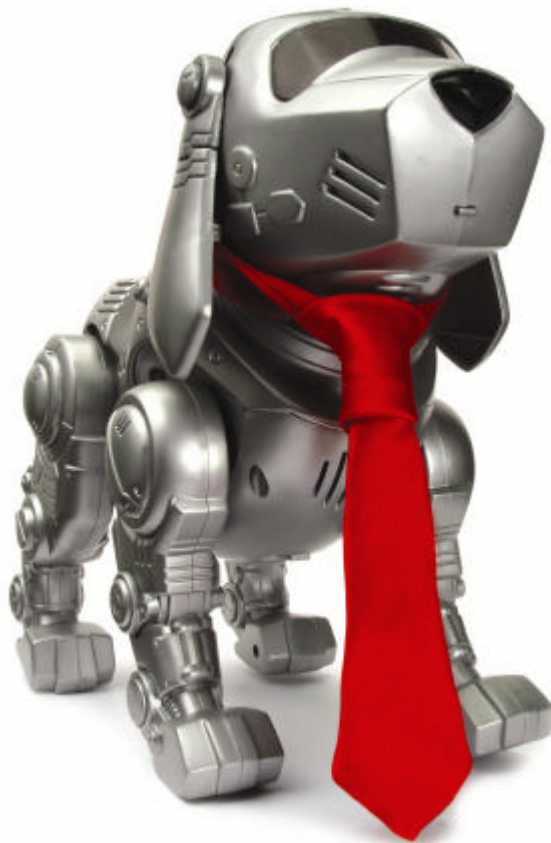


Level 1 Fundamentals of computing systems and customer care

e-Quals
Unit syllabus
7262-111



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Unit 111 Fundamentals of computing systems and customer care Level 1 (Core)

Rationale

This unit will allow candidates the opportunity to enter the PC support environment. Candidates will learn various aspects of computer technology. This will aid the development of skills required for job roles related to PC Support and customer care. Candidates will explore aspects of the technical issues related to home computers as well as business systems.

There are four outcomes to this unit. The candidate will be able to:

1. Identify functions of components of a personal computer system
2. Briefly explain Health and Safety and Environmental related issues including disposal of used parts
3. Undertake customer care fundamentals
4. Identify software to protect home and business computers from security issues.

Guided learning hours

The recommended guided learning hours for this unit are 45.

Connections with other awards

NVQ Links

Outcome **This award contributes to the knowledge and understanding of the following elements of NVQ(s) at level 1**

1	Level 1 – Health and safety in ICT and Contact Centres 1
1,2,4,5	Level 1 – Customer Care 1
2	Level 1 – Security of ICT systems 1
1,2,3	Level 1 – Software installation and upgrade 1
1,2,3,4	Level 1 – System operation 1
1,2,3	Level 1 – Technical advice and guidance 1
1,2	Level 1 – Technical fault diagnosis 1
1	Level 1 – Technical fault remedy selection 1
1,2,3	Level 1 – Testing ICT systems 1
1,2,3	Level 1 – Working with ICT hardware and equipment 1

Key Skills Links

Communication	C1.1 C1.2 C1.3
Application of number	
IT	IT 1.1 IT 1.2 IT 1.3
Working with others	
Improving own learning	LP 1.2 LP 1.3
Problem solving	PS 1.1 PS 1.2

Assessment

Assessment of this module will be by completion of a set assignment covering both practical activities and underpinning knowledge.

Video recordings of minors (those under 18 years) being used as evidence

Videos of minors can be used as the medium to present evidence as part of the assignment. In these cases both the approved centre and the candidate have responsibilities in terms of meeting any child protection legislation and seeking to safeguard the interests of the minor.

As a minimum, the approved centre must inform the candidate that he/she must:

- obtain written permission from their parent/guardian prior to collecting the evidence and include this permission in the portfolio
- have a valid reason to use video recordings as part of the evidence in the portfolio
- keep video recordings secure from unauthorised access, whether stored electronically or in hard copy.

The approved centre must retain sufficient written records of compliance with the above.

Outcome 1: Identify functions of various components of a PC system

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. Identify use of components that make up a PC <ul style="list-style-type: none"> • Case (Desktop, Mini, Midi, Tower) • Hard drive (IDE, SCSI, SATA) • CD/DVD/CDRW drive • Floppy disk drive • Motherboard • Processor • Memory • Graphics card • Sound card • Modem/NIC • Memory • Monitor (LCD, CRT) • Keyboard • Mouse • Cables • Back-up media (USB Drive, ZIP/Tape Drive) 2. Connect peripherals for a specific purpose <ul style="list-style-type: none"> • Monitor • Printer • Scanner • Web cam • Digital camera • Joystick/Game pad • Graphic tablet • Speakers • Microphone 3. Install an operating system on a personal computer 4. Install a variety of application software on a personal computer eg <ul style="list-style-type: none"> • Office application eg Microsoft Office • Anti-virus software • A software firewall • Anti-Spyware • Anti-Malware • Digital Imaging 		

Underpinning knowledge

The candidate will be able to:

1. State differences between a PC for home use and a PC for business use
2. Identify the difference between hardware and software
3. State the function of various components that make up a PC, eg
 - Input Devices (Keyboard, Mouse, CD/DVD/CDRW/Floppy disk drive, etc)
 - Output devices (LCD/CRT Monitor, Inkjet/laser printer, etc.)
 - Storage media (IDE/SCSI/SATA Hard drive, USB Drive, ZIP/Tape Drive)
 - Processing components (CPU, Graphics card, Sound card, Modem/NIC)
 - Case (Desktop, Mini, Midi, Tower)
 - Motherboard
 - Memory
4. Identify hardware and peripherals suitable for a PC for a specific purpose
 - Monitor
 - Printer
 - Scanner
 - Web cam
 - Digital camera
 - Joystick/Game pad
 - Speakers
 - Microphone
 - Uninterruptible Power Supply (UPS)
5. Identify operating systems and application software to suit different requirements
6. State problems that could be encountered while installing a PC
 - Damaged parts
 - Wrong parts
 - Incompatible parts
 - Customer dissatisfaction
 - Power supply location
 - Location of Internet connection
 - Unsuitable environment (glare, very hot, very cold, very dusty etc.)

Outcome 2: Briefly explain Health and Safety related issues including disposal of used parts

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate safe handling techniques for: <ul style="list-style-type: none"> • ESD sensitive PC components • Electrical cables/sockets • Sharp edges • Various tools and equipment 2. Demonstrate safe lifting and manual handling techniques for various peripherals 3. Identify the correct type of fire extinguisher for use on an electrical fire eg CO₂, Powder 4. Show examples of good practice in relation to <ul style="list-style-type: none"> • Sitting in front of a PC • Monitor glare and ambient lighting • Using keyboard and mouse • Injuries caused by repeated use of a PC 5. Demonstrate use of anti-static control equipment eg wrist strap and table mat. 6. Pack and unpack PC components eg Memory, CPU, motherboard. 7. Give examples of good practices related to COSHH 8. Demonstrate knowledge of the correct disposing of items eg <ul style="list-style-type: none"> • CMOS battery • CD/DVD Drive • Toner cartridge • CRT monitor • Hard Disk Drive 9. Identify if the correct mains fuse is fitted to various peripherals eg <ul style="list-style-type: none"> • Printer • Monitor • Central Processing Unit (CPU) 		

Underpinning knowledge**The candidate will be able to:**

1. Identify why Health and Safety is important
2. Briefly describe principal requirements of COSHH
3. Identify Health and Safety factors related to electrical voltages
4. Identify static electricity and Health and Safety issues related to ESD
5. Identify best practice in relation to body ergonomics, strain injuries and screen radiation when using a PC
6. State employees' responsibilities under the current Health and Safety legislation
7. List safe use of different types fire extinguishers eg water, foam, CO₂, powder
8. State the need for PAT testing
9. State the correct fuse rating for a given peripheral
10. List common safety factors for disassembling and building a PC
 - Electrical hazards
 - ESD
 - Sharp edges
 - Manual handling
 - Using tools
 - Cables (including fibre optics)
11. Briefly state the requirements for disposing of used parts according to the current recycling legislation

Outcome 3: Undertake customer care fundamentals

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. Identify customer needs and requirements for a specific task eg software faults, hardware faults, installation upgrade, maintenance and repair 2. Identify standard customer care situations that should be escalated eg insufficient technical knowledge, unavailable parts, complaints 3. Deal with various kinds of customers eg <ul style="list-style-type: none"> • Happy • Annoyed • Know it all • Arrogant • Angry 4. Use questioning techniques such as open and closed questions 5. Work in teams on a set customer care task using effective communication 6. Give a short presentation to show the importance of: <ul style="list-style-type: none"> • Appearance • Speech • Confidence • Knowledge 		
<p>Underpinning knowledge The candidate will be able to:</p> <ol style="list-style-type: none"> 1. State the importance of customer care 2. State different ways of dealing with various kinds of customers 3. Identify different questioning techniques eg following a prepared fault finding script 4. Identify effective ways for handling customer complaints eg when to escalate a problem 5. List the benefits of teamwork for a successful business eg good communication between the team members 6. State how personal appearance, attitude and time management affects your work 7. State methods of capturing customer feedback and comments of work completed eg customer satisfaction survey 		

Outcome 4: Identify software to protect home and business computers from security issues

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. Identify various types of software licence agreements <ul style="list-style-type: none"> • Freeware • Shareware • Evaluation 2. Identify different software licence types <ul style="list-style-type: none"> • Single user • Multi user • Site licence 3. List and carry out software checks to be done before installing software on a customer's PC 4. Install an anti-virus program 5. Run the anti-virus program and scan the hard disk 6. Schedule the anti-virus scanner to update automatically 7. Install and setup a firewall 8. Demonstrate ability to choose correct back-up media 9. Demonstrate ability to back-up and restore data 		

Underpinning knowledge**The candidate will be able to:**

1. State the importance of Data Security
2. State the basic requirements of the current Data Protection Act.
3. Briefly outline problems related to computer viruses and how to protect systems from them
4. Identify various types of viruses and other malware eg Trojan Horse, Worms, hoax, etc
5. State the main issues related to spyware and ad-aware programs and how to protect systems from them
6. State the importance of maintaining up-to-date anti-virus and anti-spyware identities
7. Identify the importance of maintaining system back-ups
8. State the importance of firewalls and their use
9. Identify the basics of software licensing and copyright issues
10. State physical methods that can be used to secure systems eg door locks, keyboard locks

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