e-Quals 07 Unit Syllabus

Level 1 Computing Fundamentals (IC^3)

7266 – 011

www.cityandguilds.com/e-quals07
September 2007
Version 1.0

About City & Guilds

City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group

The City & Guilds Group includes City & Guilds, ILM (the Institute of Leadership & Management) which provides management qualifications, learning materials and membership services, NPTC which offers land-based qualifications and membership services, and HAB (the Hospitality Awarding Body). City & Guilds also manages the Engineering Council Examinations on behalf of the Engineering Council.

Equal opportunities

City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement *Access to assessment and qualifications* is available on the City & Guilds website.

Copyright

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute 2007 and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and learners studying for City & Guilds qualifications may photocopy this document free of charge and/or include a locked PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching learners working towards a City & Guilds qualification, or for internal administration purposes
- learners may copy the material only for their own use when working towards a City & Guilds qualification
- the *Standard Copying Conditions* on the City & Guilds website.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications

City & Guilds publications are available on the City & Guilds website or from our Publications Sales department at the address below or by telephoning +44 (0)20 7294 2850 or faxing +44 (0)20 7294 3387.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds
1 Giltspur Street
London EC1A 9DD
T +44 (0)20 7294 2800
F +44 (0)20 7294 2400
www.cityandguilds.com
enquiry@cityandguilds.com

Contents

Syllabus Overview		**2**
Outcome 1	Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques	3
Outcome 2	Identify types and functions of software, how software and hardware interact and fundamental database concepts	4
Outcome 3	Understand and use an operating system	5
Unit record sheet		**6**

Unit 011 Computing Fundamentals (IC^3)

Syllabus Overview

Rationale

The aim of this unit is to enable the candidate to identify and understand computer hardware, software and the operating system.

Learning outcomes

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

- Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques
- Identify types and functions of software, how software and hardware interact and fundamental database concepts
- Understand and use an operating system

Guided learning hours

It is recommended that 30 hours should be allocated for this unit. This may be on a full time or part time basis.

Connections with other qualifications

This unit contributes towards the knowledge and understanding required for the following qualifications:

IT Users N/SVQ (iTQ) Level 3

Outcome	Unit
1, 2, 3	102 – Operate a computer 1
1	103 – IT troubleshooting for users 1
1, 3	104 – IT maintenance for users 1
1	105 – IT security for users 1
2	108 – Word processing software 1
2	109 – Spreadsheet software 1
2	110 – Database software 1
2	113 – Presentation software 1
1, 2	116 – General uses of IT
1, 3	117 – Use IT systems 1
2	118 – Use IT to exchange information 1
2	119 – Use IT software 1
1	120 – Purposes for using IT 1

Assessment and grading

Assessment will be by means of a Certiport IC^3 examination. Additional information is available from **www.certiport.co.uk**

Unit 011 Computing Fundamentals (IC^3)

Outcome 1 Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques

Practical skills

The candidate will be able to:

1 identify types of computers, how they process information and how individual computers interact with other computing systems and devices

2 identify the function of computer hardware components

3 identify the factors that go into an individual or organisational decision to purchase computer equipment

4 identify how to maintain computer equipment and solve common problems relating to computer hardware .

Underpinning knowledge

The candidate will be able to:

1 identify and categorise common types of computers

2 define the role of the central processing unit and understand the typical specifications for computer components and peripherals

3 understand how memory is measured and the relationship with devices and files

4 identify the information flow between computers and storage devices

5 understand the differences between centralised processing and desktop computers and identify how computers integrate with other systems

6 list types and purpose of internal and external components and connection ports

7 identify the types and purposes of storage media

8 identify criteria for selecting a personal computer

9 identify how to protect computer hardware

10 list common problems associated with computer hardware

11 identify problems caused by insufficient maintenance

12 identify maintenance that can be carried out by IT users

13 list typical problem solving steps.

Unit 011 Computing Fundamentals (IC^3)

Outcome 2 Identify types and functions of software, how software and hardware interact and fundamental database concepts

Practical skills

The candidate will be able to:

1 identify how software and hardware work together to perform computing tasks and how software is developed and upgraded

2 identify different types of software, general concepts relating to software categories, and the tasks to which each type of software is most suited or not suited

3 identify fundamental concepts relating to database applications.

Underpinning knowledge

The candidate will be able to:

1 identify how hardware and software interact

2 identify simple terms and concepts related to software development

3 identify reasons and methods for upgrading software

4 identify fundamental concepts and common uses of:
- a word processing
- b spreadsheets
- c presentation software
- d multimedia
- e utility software
- f other types of software

5 select an appropriate application for a particular purpose

6 identify fundamental concepts and common uses of databases.

Unit 011 Computing Fundamentals (IC³)

Outcome 3 Understand and use an operating system

Practical skills

The candidate will be able to:

1 identify what an operating system is and how it works

2 solve common problems relating to operating systems

3 manipulate and control the Windows desktop, files and disks

4 identify how to change system settings

5 install and remove software.

Underpinning knowledge

The candidate will be able to:

1 identify the purpose and functionality of common operating systems

2 recognise and solve common problems relating to operating systems

3 identify and use elements of a Windows desktop

4 understand how to shut down and restart the computer

5 use the Start menu and taskbar

6 manipulate folders and icons

7 manage files using Windows explorer/file manager

8 understand what precautions should be taken when manipulating files

9 identify and solve common file problems

10 display, identify and use control panels and system settings

11 take precautions when changing systems settings

12 install software

13 identify and provide possible solutions to common problems associated with installing and running applications.

Unit record sheet

011 Level 1 Computing Fundamentals (IC^3)

Use this form to track your progress through this unit.

Tick the boxes when you have covered each outcome. When they are all ticked, you are ready to be assessed.

Outcome		✓	Date
1	**Identify types and functions of hardware, factors that influence purchasing decisions and basic maintenance techniques**	☐	
2	**Identify types and functions of software, how software and hardware interact and fundamental database concepts**	☐	
3	**Understand and use an operating system**	☐	

Candidate Signature ..... **Date** .....

City & Guilds Registration Number .....

Quality nominee (if sampled) ..... **Date** .....

Assessor Signature ..... **Date** .....

External Verifier Signature (if sampled) ..... **Date** .....

Centre Name ..... **Centre Number** .....

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2468
F +44 (0)20 7294 2400
www.cityandguilds.com
www.cityandguilds.com/e-quals07

City & Guilds is a registered charity established to promote education and training