

Level 2 Diploma for IT Practitioners (7266-24)

Qualification handbook

500/1885/1



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 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 also apply.

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 2787

F +44 (0)20 7294 2413

www.cityandguilds.com

centresupport@cityandguilds.com

Level 2 Diploma for IT Practitioners (7266-24)

Qualification handbook



www.cityandguilds.com
October 2007
Version 1.0

This page is intentionally blank

Contents

1	About this document	5
2	About the qualification	7
2.1	Aim of the qualification	7
2.2	The structure of the qualification	8
2.3	Sources of information and assistance	11
3	Candidate entry and progression	13
4	Centre requirements	14
4.1	Centre, qualification and fast track approval	14
4.2	Resource requirements	15
4.3	Registration and certification	16
4.4	Quality assurance	17
5	Course design and delivery	18
5.1	Initial assessment and induction	18
5.2	Recommended delivery strategies	19
5.3	Data protection, confidentiality and legal requirements	20
5.4	Learning and support resources	21
6	Relationships to other qualifications	22
6.1	Links to National Occupational Standards and N/SVQs	22
6.2	Relationship to previous versions of the qualification	28
6.3	Key skills (England, Wales and Northern Ireland)	29
6.4	The wider curriculum	33
7	Assessment	35
7.1	Summary of assessment requirements	35
8	Test specifications	36
8.1	Test specifications	36
9	Units	37
9.1	About the units	37
Appendix 1	Accreditation, national frameworks and qualification level descriptors	38
Appendix 2	Obtaining centre and qualification approval	39
Appendix 3	Summary of City & Guilds assessment policies	40
Appendix 4	Funding	42

This page is intentionally blank

1 About this document

This document contains the information that centres need to offer the following diploma

Level 2 Diploma for IT Practitioners (7266-24)

QCA accreditation number	500/1885/1
---------------------------------	-------------------

This document includes details and guidance on:

- centre resource requirements
- candidate entry requirements
- information about links with, and progression to, other qualifications
- qualification standards and specifications
- assessment requirements

This page is intentionally blank

2 About the qualification

2.1 Aim of the qualification

This qualification was developed to keep pace with the fast changing information technology sector and is for candidates who

- do not have access to an N/SVQ
- wish to install and support ICT systems
- want career progression within the Information and Communication Technology (ICT) industry
- wish to develop the skills learnt from NVQs and other qualifications
- require evidence towards the underpinning knowledge of the N/SVQ
- wish to undertake an Apprenticeship, using the underpinning knowledge gained from this Vocationally Related Qualification.

Accreditation details

This qualification is accredited by the Qualifications and Curriculum Authority at Level 2 of the NQF

For further details about accreditation, national qualification frameworks and level descriptors please refer to Appendix 1.

The aims of this qualification are to:

- meet the needs of candidates who work or want to work as ICT systems support professionals
- allow candidates to learn, develop and practise the skills required for employment and/or career progression in the sector
- contribute to the knowledge and understanding of the related level 2 N/SVQs for ICT Practitioners, whilst containing additional skills and knowledge which go beyond the scope of the NOS. See the N/SVQ Relationship mapping in 6.1 for further details.
- serve as a technical certificate, part of the Apprenticeship framework
- provide valuable accreditation of skills and/or knowledge for candidates not following N/SVQ and Apprenticeship programmes, without requiring or proving occupational competence.

2 About the qualification

2.2 The structure of the qualification

This section provides information about the structure of the qualification and unit combinations required for the qualification.

Full qualifications

The qualification will be awarded to candidates on successful completion of the assessments for one core unit from a choice of 402 plus sufficient guided learning hours from the choice of options to make up a total of 325 guided learning hours.

60% of the guided learning hours **must be** at the level of the qualification.

Candidates **may** also take 1 unit from the IT User options and 1 unit from the non-IT options:

QCA unit reference	City & Guilds unit number	Unit title	Excluded combinations
R/500/9868	024	Designing and creating databases	
H/500/9860	035	Designing and creating multi-page web sites	
R/500/7036	201	Create designs and test software components – core unit	May not be taken with 301
D/500/7069	202	Create software components using C++	
Y/500/7037	203	Create software components using COBOL	
Y/500/7040	204	Create software components using Visual Basic	
R/500/7070	205	Create software components using Java	
D/500/7038	206	Create software components using C#	
H/500/7039	207	Create software components using Visual Basic.net	
L/501/0176	046	Designing and creating advanced web sites	
R/501/0177	047	Designing and creating relational databases	
F/500/7517	048	Creating and designing websites using web animation and web graphics	
F/500/7064	301	Develop designs and test software components – (core unit)	May not be taken with 201
J/500/7065	302	Develop software using C++	
Y/500/6759	303	Develop software using COBOL	
F/500/7145	304	Develop software using Visual Basic	
R/500/7067	305	Develop software using Java	

QCA unit reference	City & Guilds unit number	Unit title	Excluded combinations
A/500/7144	306	Requirements analysis and systems specification	Alternative core unit
L/500/6631	307	Develop software using Visual Basic.net	
R/500/6632	308	Develop software using C#	
Y/500/7068	310	Develop software using Structured Query Language (SQL)	
Y/500/7071	401	Maintain ICT equipment and systems 2*	
Y/500/7121	403	Install and configure ICT equipment and operating systems*	
F/101/0487	404	Install, configure and maintain software	
H/500/7123	405	Testing ICT systems 2*	
K/500/7124	406	ICT Systems monitoring and operation*	
T/500/7126	407	ICT Repair centre procedure 2*	
F/500/7131	408	Install, configure and test ICT Networks*	
D/500/5824	409	CompTIA Digital Home Technology Integrator (DHTI+)	
H/500/5825	410	CompTIA A+ Essentials	
K/500/5826	411	CompTIA A+ IT Technician	
M/500/5827	412	CompTIA A+ Remote Support Technician	
T/500/5828	413	CompTIA A+ Depot Technician	
F/102/9055	414	Supporting users and troubleshooting a Microsoft Windows XP operating system (MCDST)	
A/102/9054	415	Supporting users and troubleshooting desktop applications on a Microsoft Windows XP Operating systems (MCDST)	
J/500/7129	416	Create automated procedures for ICT Operating systems*	
T/501/1483	417	CISCO IT Essentials	
J/501/3173	418	CISCO Panduit Network Infrastructure Essentials	

QCA unit reference	City & Guilds unit number	Unit title	Excluded combinations
M/101/2977	501	Plan for the delivery of ICT support services and assist in the acquisition of ICT systems	
T/101/2978	502	Customer support provision 3	Core unit for 7266-27 and 7266-29 May not be taken with 402
A/101/2979	503	Install, configure and integrate networked hardware and software	
R/500/7568	504	Install, configure and upgrade ICT software	
Y/500/7149	505	Testing ICT systems 3	
R/500/7151	506	ICT Systems and network management	
Y/500/7152	507	ICT Repair centre procedure 3	
Y/500/7572	508	Develop ICT technical documentation and procedures	
L/101/2985	509	Principles of planning telecommunications services	
D/500/7153	510	Maintain ICT equipment and systems	
Y/500/7569	511	Implementing an ICT systems security policy	
M/500/7156	522	Design and maintain ICT networks software components	
F/501/3057	523	Implementing and Managing Microsoft Exchange Server (70-284)	
L/501/3174	524	CISCO Fundamentals of wireless networking	
M/501/3183	525	CISCO CCENT	

Certificates of unit credit

Certificates of unit credit (CUC) will be issued to candidates for each successfully completed unit, even if the full qualification is not attempted. Vendor certificates are issued by the test centre where the candidate takes the vendor test.

Candidates who do complete a full qualification will receive, in addition to their full certificate/diploma, a CUC for each unit achieved.

2 About the qualification

2.3 Sources of information and assistance

Related publications

City & Guilds also provides the following documents specifically for this qualification:

Publication	Available from
Assignment instructions for assessors	www.cityandguilds.com/e-quals07
Assignment instructions for candidates	www.cityandguilds.com/e-quals07
Information for centres	www.cityandguilds.com/e-quals07
Information for employers	www.cityandguilds.com/e-quals07
Information for learners	www.cityandguilds.com/e-quals07
Qualification handbook (SP-24-7266)	www.cityandguilds.com/e-quals07

Other essential City & Guilds documents

There are other City & Guilds documents which contain general information on City & Guilds qualifications:

- **Providing City & Guilds qualifications – a guide to centre and qualification approval** contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve ‘approved centre’ status, or to offer a particular qualification.
- **Ensuring quality** contains updates on City & Guilds assessment and policy issues.
- **Centre toolkit** contains additional information on *Providing City & Guilds qualifications*, in a CD-ROM, which links to the internet for access to the latest documents, reference materials and templates. The *Centre Toolkit* is sent to centres when they receive approved centre status. It is also available from to order at an additional cost.
- **Online catalogue** contains details of general regulations, registration and certification procedures and fees. This information is also available online.

For the latest updates on our publications and details of how to obtain them and other City & Guilds resources, please refer to the City & Guilds website.

City & Guilds websites

Website	Address	Purpose and content
City & Guilds main website	www.cityandguilds.com	This is the main website for finding out about the City & Guilds group, accessing qualification information and publications.
SmartScreen	www.smartscreen.co.uk	SmartScreen is the City & Guilds online learning support website. It gives registered subscribers access to qualification-specific support materials.
Walled Garden	www.walled-garden.com	The Walled Garden is a qualification administration portal for approved centres, enabling them to register candidates and claim certification online.

Contacting City & Guilds by e-mail

The following e-mail addresses give direct access to our Customer Relations team.

e-mail	Query types
learnersupport@cityandguilds.com	all learner enquiries, including <ul style="list-style-type: none">• requesting a replacement certificate• information about our qualification• finding a centre.
centresupport@cityandguilds.com	all centre enquiries
walledgarden@cityandguilds.com	all enquiries relating to the Walled Garden, including <ul style="list-style-type: none">• setting up an account• resetting passwords.

3 Candidate entry and progression

Candidate entry requirements

Candidates should not be entered for a qualification of the same type, content and level as that of a qualification they already hold.

There are no formal entry requirements for candidates undertaking this qualification. However, centres must ensure that candidates have the potential and opportunity to successfully gain the qualification.

Please see section 5 of this document, Course design and delivery, which offers guidance on initial assessment.

Age restrictions

This qualification is approved for use by candidates under the age of 16. Centres and candidates should be fully aware of minimum age requirements in their home nation and any implications for completing assessments.

Progression

The qualification provides knowledge and practical skills related to the NVQ Level 2 for ICT Practitioners.

On completion of this qualification, candidates may progress into employment or to the following City & Guilds qualifications:

- City & Guilds level 3 NVQ for ICT Professionals (4324-03)
- City & Guilds level 3 Advanced Diploma for IT Professionals (7266-25, -29)
- City & Guilds level 3 Advanced Diploma in IT Systems Support (7266-27)

Apprenticeship frameworks

The Level 2 Diploma for IT Practitioners has been approved by e-skills UK, the Sector Skills Council for IT, Telecoms and Contact Centres, as a technical certificate for the Apprenticeship in IT Services and Development..

This qualification supports the Employment rights and responsibilities (ERR) of the apprenticeship framework.

Full details of the requirements of the apprenticeship framework for the IT Services and Development are available from:

Name of SSC	e-skills UK
Address	1 Castle Lane London SW1E 6DR
Telephone	020 7963 8920
Fax	020 7492 9138
e-mail	info@e-skills.com
URL	www.e-skills.com

4 Centre requirements

4.1 Centre, qualification and fast track approval

Centres not yet approved by City & Guilds

To offer this qualification, new centres will need to gain both **centre and qualification approval**. Please refer to Appendix 2 for further information.

Existing City & Guilds centres

To offer this qualification, centres already approved to deliver City & Guilds qualifications will need to gain **qualification approval**. Please refer to Appendix 2 for further information.

Centres already offering City & Guilds qualifications in this subject area

Centres approved to offer the Level 2 Diploma for IT Professionals (ICT Systems Support), 7262-24, and who have been active within the 2006-2007 academic year, will receive automatic approval to offer this qualification, this process will be coordinated internally by City & Guilds.

Centres that are approved to offer the NVQ for IT Practitioners (4324-02) at level 2 may apply to offer the new qualification using the fast track form

- providing there have been no changes to the way the qualifications are delivered, and
- if they meet all of the approval criteria specified in the fast track form guidance notes.

Fast track approval is available for 12 months from the launch of the qualification. After this time, the qualification is subject to the **standard** Qualification Approval Process. It is the centre's responsibility to check that fast track approval is still current at the time of application.

4 Centre requirements

4.2 Resource requirements

Physical resources

Centres must provide access to sufficient equipment in the centre or workplace to ensure candidates have the opportunity to cover all of the practical activities.

Human resources

To meet the quality assurance criteria for this qualification, the centre must ensure that the following internal roles are undertaken:

- quality assurance co-ordinator
- trainer / tutor
- assessor
- internal verifier/moderator
- examinations secretary
- invigilator.

Staff delivering the qualifications

Staff delivering this qualification must be able to demonstrate that they are technically competent in the area for which they are delivering training and/ or have experience of providing training. This knowledge must be at least to the same level as the training being delivered.

Centre staff may undertake more than one role eg tutor and assessor or internal verifier, but must never internally verify their own assessments.

Trainer / tutors must

- be occupationally knowledgeable in the area for which they are delivering training. This knowledge must be at least to the same level as the training being delivered.
- have credible experience of providing training.

Assessors internal verifiers

While the Assessor/Verifier (A/V) units are valued as qualifications for centre staff, they are not currently a requirement for the qualification.

Please note: Centre staff may undertake more than one role eg tutor and assessor but must never internally verify their own assessments.

Continuing professional development (CPD)

Centres are expected to support their staff in ensuring that their knowledge of the occupational area and of best practice in delivery, mentoring, training, assessment and verification remains current, and takes account of any national or legislative developments.

4 Centre requirements

4.3 Registration and certification

Administration

Full details of City & Guilds' administrative procedures for this qualification are provided in the Online Catalogue. This information includes details on:

- registration procedures
- enrolment numbers
- fees
- entry for examinations
- claiming certification.

Centres should be aware of time constraints regarding the registration and certification periods for the qualification, as specified in the City & Guilds *Online Catalogue*.

Centres should follow all administrative guidance carefully, particularly noting that fees, registration and certification end dates for the qualification are subject to change. The latest News are available on the website (www.cityandguilds.com).

Regulations for the conduct of examinations

Regulations for the conduct of examinations for online and written examinations are given in *Providing City & Guilds qualifications - a guide to centre and qualification approval* and in the Online Catalogue. Centres should ensure they are familiar with all requirements prior to offering assessments.

Retaining assessment records

Centres must retain copies of candidate assessment records for at least three years after certification.

Notification of results

After completion of assessment, candidates will receive, via their centre, a 'notification of candidate results', giving details of how they performed. It is not a certificate of achievement.

Certificate of unit credit (CUC)

A certificate of unit credit records the successful completion of a unit. Centres can apply for CUCs on behalf of a candidate at any time after they have achieved the unit. They do not need to wait until the full programme of study has been completed.

Full certificates

Full certificates are only issued to candidates who have met the full requirements of the qualification, as described in section 2.2, 'The structure of the qualification'.

4 Centre requirements

4.4 Quality assurance

This information is a summary of quality assurance requirements.

Providing City & Guilds qualifications and in the Centre toolkit provide full details and guidance on:

- internal quality assurance
- external quality assurance
- roles and responsibilities of quality assurance staff.

Internal quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications.

Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance, and City & Guilds is responsible for external quality assurance.

External quality assurance

External quality assurance for the qualification will be provided by City & Guilds external verification process.

External verifiers are appointed by City & Guilds to approve centres, and to monitor the assessment and internal quality assurance carried out by centres. External verification is carried out to ensure that assessment is valid and reliable, and that there is good assessment practice in centres.

To carry out their quality assurance role, external verifiers must have appropriate occupational and verifying knowledge and expertise. City & Guilds external verifiers attend training and development designed to keep them up-to-date, facilitate standardisation between verifiers and share good practice.

City & Guilds External Verifiers use electronically scannable report forms designed to provide an objective risk analysis of individual centre assessment and verification practice.

External verifiers:

The role of the external verifier is to:

- provide advice and support to centre staff
- ensure the quality and consistency of assessments within and between centres by the use of systematic sampling
- regularly visit centres to ensure they continue to meet the centre and qualification approval criteria
- provide feedback to centres and to City & Guilds.

5 Course design and delivery

5.1 Initial assessment and induction

Centres will need to make an initial assessment of each candidate prior to the start of their programme to ensure they are entered for an appropriate type and level of qualification.

The initial assessment should identify any specific training needs the candidate has, and the support and guidance they may require when working towards their qualification. This is sometimes referred to as diagnostic testing.

City & Guilds recommends that centres provide an induction programme to ensure the candidate fully understands the requirements of the qualification they will work towards, their responsibilities as a candidate, and the responsibilities of the centre. It may be helpful to record the information on a learning contract.

Further guidance about initial assessment and induction, as well as a learning contract that centres may use, are available in the *Centre toolkit*.

5 Course design and delivery

5.2 Recommended delivery strategies

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

Centres may design course programmes of study in any way that

- best meets the needs and capabilities of their candidates
- which satisfies the requirements of the qualification.

In particular, staff should consider the skills and knowledge related to the national occupational standards.

City & Guilds recommends that centres address the wider curriculum, where appropriate, when designing and delivering the course. Centres should also consider links to the National Occupational Standards, Key/Core Skills and other related qualifications. Relationship tables are provided in section 6 Relationships to other qualifications, to assist centres with the design and delivery of the qualification.

Centres may wish to include topics as part of the course programme which will not be assessed through the qualification.

For further information to assist with the planning and development of the programme, please refer to the City & Guilds Smartscreen portal at www.smartscreen.co.uk.

5 Course design and delivery

5.3 Data protection, confidentiality and legal requirements

Data protection and confidentiality

Data protection and confidentiality must not be overlooked when planning the delivery of this qualification.

Centres offering this qualification may need to provide City & Guilds with personal data for staff and candidates. Guidance on data protection and the obligations of City & Guilds and centres are explained in Providing City & Guilds qualifications.

Protecting identity

It is extremely important to protect the identity of the individuals encountered by candidates in the work setting, eg customers and clients.

Confidential information must not be included in candidate portfolios or assessment records. Confidential information should remain in its usual location, and a reference should be made to it in the portfolio or assessment records.

Images of minors being used as evidence

If videos or photographs of minors (those under 18) are used as the medium to present evidence as part of the qualification, **both centre and candidate** have responsibilities for meeting child protection legislation.

It is the responsibility of the centre to inform the candidate of the

- need to obtain permission from the minor's parent/guardian prior to collecting the evidence
- reasons and restrictions for using photographs or video recordings as evidence
- period of time for which the photographs or video recordings may be kept
- obligation to keep photographs or video recordings secure from unauthorised access
- secure electronic storage requirements of photographs or video recordings
- associated child protection legislation.

5 Course design and delivery

5.4 Learning and support resources

City & Guilds will provide the following learning and support resources which will be posted on our website.

Resource	How to access
SmartScreen	www.smartscreen.co.uk
Assignment instructions for assessors	www.cityandguilds.com/e-quals07
Assignment instructions for candidates	www.cityandguilds.com/e-quals07

6 Relationships to other qualifications

6.1 Links to National Occupational Standards and N/SVQs

City & Guilds has identified the connections to linked NVQs and National Occupational Standards. This mapping is provided as guidance and suggests areas of overlap and commonality between the qualifications. It does not imply that candidates completing units in one qualification are automatically covering all of the content of the qualifications listed in the mapping.

Centres are responsible for checking the different requirements of all qualifications they are delivering and ensuring that candidates meet requirements of all units/qualifications. For example, a qualification may provide knowledge towards an N/SVQ, but centres are responsible for ensuring that the candidate has met all of the knowledge requirements specified in the N/SVQ standards.

This qualification has connections to the

- Level 2 NVQ for IT Practitioners (4324-02)
- Level 2 Diploma for IT Professionals (7266-26)

Relationship between the Vocational Qualification and Level 2 NVQ for IT Practitioners

This qualification	Outcome	Level 3 NVQ for IT Professionals (4324)
Unit Number/Title		Related units
401 Maintain ICT equipment and systems	3 (part) 2,3 2,3 2,3 2,3 2,3 2,3 1,2,3	Customer care Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment
402 Customer support provision 2	1, 2, 3, 4 1, 2 1, 3 2, 3, 4 2, 3, 4 2, 3, 4 2, 3, 4 3, 4 1, 2, 3, 4 1, 2, 3, 4	Customer care Investigating and defining requirements Interpersonal and written communication System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment Develop personal and organisational effectiveness

This qualification	Outcome	Level 3 NVQ for IT Professionals (4324)
Unit Number/Title		Related units
403 Install and configure ICT equipment and operating systems	2, 3, 5 4, 5 2, 5 1, 2, 4 3, 5 1, 2, 3, 4, 5 3, 5 1, 2, 3, 4, 5	Customer care Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment
404 Install, configure and maintain software	1, 2, 3, 4 1, 2, 3, 4 1, 2, 3, 4 1, 2, 4 1, 2, 4 2, 4 1, 2, 3, 4 1, 2, 3, 4	Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment Email, Word processing software, Spreadsheet software, Presentation software, Database software, Website software
405 Testing ICT systems 2	1, 3 3 1, 2, 3 1, 2, 3 2, 3 1, 2, 3 1, 2, 3	Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment
406 ICT Systems monitoring and operation	2 2,3 1, 2, 3 1, 2, 3 2, 3 1, 2 1, 2, 3	Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment
407 ICT Repair centre procedure 2	2 2, 3 1, 2, 3 1, 3 1, 3 1, 2, 3 1, 2, 3	Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment

This qualification	Outcome	Level 3 NVQ for IT Professionals (4324)
Unit Number/Title		Related units
408 Install, configure and test ICT networks	3 3, 4 1, 2, 3, 4 3 3 3 1, 2, 3, 4	Software installation and upgrade System operation Technical advice and guidance Technical fault diagnosis Technical fault remedy selection Testing ICT systems Working with ICT hardware and equipment
416 Create automated procedures for ICT operating systems	5	Testing ICT systems 2
501 Plan for the delivery of ICT support services and assist in the acquisition of ICT systems	1,2,3,4,5 1,3,4,5 2	306.1a Relevant client/customer needs 306.1b Relevant client/customer constraints 306.2 Defects which can arise in information
502 Customer support provision 3	2 2 2 1 1,2,4 1,4,5 3 1,3,4,5 1,3,4,5 1,3,4,5	303.4 Relevant methods of measuring customer satisfaction 306.1 Relevant client/customer needs 306.2 Defects which can arise in information 309.1 The products or services to be supported 309.2 Organisational requirements of customer care 316.1 The appropriate uses of advice and guidance 316.4 Technical information to form the basis for advice and guidance 317.1 Appropriate uses of diagnostic methods 317.2 The purpose for which diagnostic information is required 317.3 The diagnostic process to be followed

This qualification	Outcome	Level 3 NVQ for IT Professionals (4324)
Unit Number/Title		Related units
503 Install, configure and integrate networked hardware and software	1,2	301.1 Carry out formal Health and Safety risk assessments
	2, 5	314.1 Prepare for the installation of hardware products
	2, 3	314.2 Make hardware products ready for installation
	2, 3	314.3 Assemble hardware products
	3	314.4 Load and use software associated with hardware products
	3, 4	314.5 Complete the installation of hardware products
	2, 4	315.1 Prepare for the installation of software
	4	315.2 Load and configure software
	4	315.3 Complete the installation of software
	3, 4, 5	316.1 Plan for system testing
	3, 4, 5	316.2 Carry out system testing
3, 4, 5	316.3 Examine and respond to the results of system tests	
504 Install, configure and upgrade ICT software	1,2,3,4	313.1 The installation/upgrade process
	1,2	313.2 The capabilities of available software loading facilities
	3,4	319.1 The testing process to be followed
	3,4	319.3 What test preparations and conclusion activities are necessary for specific tests
	2,4	320.1 How to create and edit standard profiles
	2,4	320.2 How to make changes to user profiles
505 Testing ICT systems 3	2,4	320.3 How user profiles affect access to system facilities
	1, 2,3	319.1 The testing process to be followed
	2,4	319.2 The purpose of testing
506 ICT Systems and network management	1,3	319.3 What test preparation and conclusion activities are necessary for specific tests
	1, 2,3	314.1 How available options for system configuration affect functionality and capacity
	1, 3	314.2 Make changes to system configuration
	2	315.1 What operating procedures are applicable to the system
	1, 3, 4	315.2 How to operate the system
	1, 4	315.3 System functionality during normal operation
	1, 4	315.4 Effects of operational activities on system functionality
	2,3,4	315.5 How to recognise and resolve system faults
	1,2,3	317.1 Appropriate uses of diagnostic methods

This qualification	Outcome	Level 3 NVQ for IT Professionals (4324)
Unit Number/Title		Related units
	2,3	317.2 The purpose for which diagnostic information required
	1,2,3	317.3 The diagnostic process to be followed
	3	319.1 The testing process to be followed
	4	319.2 The purpose of testing
	3	319.3 What test preparation and conclusion activities are necessary for specific tests
	1	321.1 The working process
	3	321.2 What regulatory requirements affect work activities
507 ICT Repair centre procedure 3	2	33.2 Obtain technical resources for a repair centre
	2, 3	33.3 Develop technical resources for a repair centre
	4	33.4 Co-ordinate the implementation of technical resources
	1	104.1 Check that health and safety procedures are followed
	1, 2	104.2 Ensure that risks are controlled safely and effectively
		Assess the technical resource requirements of repair centre operations
508 Develop ICT technical documentation and procedures	1, 2	309.1 Products or services to be supported
	3	316.1 Appropriate uses of advice and guidance
	1,2,3	316.4 Technical information to form the basis for advice and guidance

This qualification	Outcome	Level 3 NVQ for IT Professionals (4324)
Unit Number/Title		Related units
509 Principles of planning telecommunications services	1, 2, 4, 5 1, 2, 3, 2 3 1, 3, 5 2 3 1, 2, 3, 5 4	302 Develop personal and organisational effectiveness 3 306 Investigating and defining requirements 3 305 Interpersonal and written communication 3 308 Quality management of ICT products and services 3 321 Working with ICT hardware and equipment 3 325 Spreadsheet software 3 328 Artwork and imaging software 333 Support the efficient use of resources 3 453 Manage the use of physical resources 4 454 Manage the use of financial resources 4 460 Develop a detailed schedule for the project 4 461 Identify perceived risks and evaluate options for their control 4
510 Maintain ICT equipment and systems 3	1 2, 3 3	319 1 The testing process to be followed 319.2 The purpose of testing 319.3 What test preparation and conclusion activities are necessary for specific tests
511 Implementing an ICT systems security policy	4 1, 2, 3, 4	320 User profile administration 310 Security for ICT Systems
522 Design and maintain ICT networks software components	3,4,5	311 Software development – component creation 3 307 Managing software development 3

6 Relationships to other qualifications

6.2 Relationship to previous versions of the qualification

City & Guilds has identified the connections to qualifications previously offered by City & Guilds in this subject area.

This mapping is provided as guidance and suggests areas of overlap and commonality between the qualifications. It does not imply that candidates completing units in one qualification are automatically covering all of the content of the qualifications listed in the mapping.

This qualification has connections to the Level 2 Diploma for IT Practitioners (ICT Systems Support) 7262-24

Relationship between the Vocational Qualification and Level 2 Diploma for IT Practitioners (ICT Systems Support)

This qualification	Level 2 Diploma for IT Practitioners (ICT Systems Support) 7262-24
Unit Number/Title	Related units
401 Maintain ICT equipment and systems 2	401 Maintain equipment and systems
402 Customer support provision 2	402 Customer support provision
403 Install and configure ICT equipment and operating systems	403 Install and configure equipment and operating systems
404 Install, configure and maintain software	404 Install, configure and maintain software
405 Testing ICT systems 2	405 Systems testing
406 ICT Systems monitoring and operation	406 System operation
407 ICT Repair centre procedure 2	407 Repair centre procedure
408 Install, configure and test ICT Networks	408 Networking
414 Supporting users and troubleshooting a Microsoft Windows XP operating system (MCDST)	431 Supporting users and troubleshooting a Microsoft Windows XP operating system (MCDST)
415 Supporting users and troubleshooting desktop applications on a Microsoft Windows XP Operating system (MCDST)	432 Supporting users and troubleshooting desktop applications on a Microsoft Windows XP Operating system (MCDST)
416 Create automated procedures for ICT Operating systems	7262-22 207 Operating systems

6 Relationships to other qualifications

6.3 Key skills (England, Wales and Northern Ireland)

This qualification includes opportunities to develop and practise many of the underlying skills and techniques described in Part A of the standard for each key skills qualification. Where candidates are working towards any key skills alongside this qualification they will need to be registered with City & Guilds for the key skills qualifications.

It should not be assumed that candidates will necessarily be competent in, or able to produce evidence for, the key skills at the same level as this qualification.

The 'signposts' below identify the **potential** for key skills portfolio evidence gathering that can be naturally incorporated into the completion of each unit. Any key skills evidence needs to be separately assessed and must meet the relevant standard defined in the QCA document '*Key skills qualifications standards and guidance*'.

If this qualification is being delivered alongside an Essential Skills Communication and/or Application of Number programme in **Northern Ireland**, it is good practice to emphasise the relevance of these skills to candidates when completing their Action-Based Activities.

Unit number/ and title	Communication	Application of Number	Information Technology
401 Maintain ICT equipment and systems	C2.2, C2.3		IT2.1
402 Customer support provision 2	C2.2, C2.3		IT2.1
403 Install and configure ICT equipment and operating systems	C2.2, C2.3		IT2.1
404 Install, configure and maintain software	C2.2, C2.3		IT2.1
405 Testing ICT systems 2	C1.2, C1.3		
406 ICT Systems monitoring and operation	C1.2, C1.3		
407 ICT Repair centre procedure 2	C1.2	N2.1, N2.2	
408 Install, configure and test ICT networks	C2.1		
416 Create automated procedures for ICT operating systems		N1.1	

501 Plan for the delivery of ICT support services and assist in the acquisition of ICT systems	C3		IT2
502 Customer support provision 3	C2.1, C3.2, C3.3		IT2
503 Install, configure and integrate networked hardware and software	C3		IT2
504 Install, configure and upgrade ICT software	C2.2, C2.3		IT2
505 Testing ICT Systems 3	C3.2, C3.3		IT2
506 ICT Systems and network management	C2.2, C2.3		IT2.1
507 ICT Repair centre procedures 3	C3.2, C3.3		IT2
508 Develop ICT technical documentation and procedures	C3.1a, C3.2, C3.3		IT3
509 Principles of planning telecommunications services	C3	N2	IT3
510 Maintain ICT equipment and systems 3	C2.1a, C2.2, C2.3		IT2
511 Implementing an ICT systems security policy	C3.2		IT2.1
512 Installing, configuring and administering Microsoft Windows XP Professional (70-270)	C3.2		IT3.1
513 Managing and maintaining a Microsoft Windows Server 2003 environment (70-290)	C3.2		IT3.1
514 Planning and maintaining a Microsoft Windows Server 2003 network infrastructure (70-293)	C3.2		IT3.1
515 Implementing, managing and maintaining a Microsoft Windows Server 2003 network infrastructure (70-291)	C3.2		IT3.1
516 CompTIA ICT systems security+	C3.2		IT3.1
517 CompTIA ICT systems network+	C2.2		IT3.1
518 CISCO CCNA1	C3.2		IT3.1
519 CISCO CCNA2	C3.2		IT3.1
520 CISCO CCNA3	C3.2		IT3.1
521 CISCO CCNA4	C3.2		IT3.1
522 Design and maintain ICT Networks software components	C1.2, C3.2	N1.1	IT3.1
523	C3.2		IT3.1

524	C3.2		IT3.1
525 CISCO CCENT	C3.2		IT3.1
Unit number/and title	Problem Solving	Improving own learning and performance	Working With Others
401 Maintain ICT equipment and systems	PS2	LP2	
402 Customer support provision 2	PS2.1, PS2.2	LP2	
403 Install and configure ICT equipment and operating systems	PS2	LP2	
404 Install, configure and maintain software	PS2	LP2	
405 Testing ICT systems 2	PS2	LP2	
406 ICT Systems monitoring and operation		LP2	
407 ICT Repair centre procedure 2	PS2	LP2	
408 Install, configure and test ICT networks	PS2.1, PS2.2, PS2.3		
416 Create automated procedures for ICT operating systems	PS3.1, PS3.2, PS3.3	LP3.1, LP3.2, LP3.3	
Unit number/and title	Problem Solving	Improving own learning and performance	Working With Others
501 Plan for the delivery of ICT support services and assist in the acquisition of ICT systems	PS3.1, PS3.2	LP2	WWO3
502 Customer support provision 3	PS3	LP2	WWO3
503 Install, configure and integrate networked hardware and software	PS3	LP2	WWO1
504 Install, configure and upgrade ICT software	PS2	LP2	
505 Testing ICT Systems 3	PS3.1	LP2	
506 ICT Systems and network management	PS3.1	LP2	
507 ICT Repair centre procedures 3	PS3.1	LP2	
508 Develop ICT technical documentation and procedures	PS2	LP2	

Unit number/and title	Problem Solving	Improving own learning and performance	Working With Others
509 Principles of planning telecommunications services	PS3	LP2	WWO3
510 Maintain ICT equipment and systems 3	PS3	LP2	WWO2
511 Implementing an ICT systems security policy	PS3.1	LP2.1	
512 Installing, configuring and administering Microsoft Windows XP Professional (70-270)	PS3.1	LP3.2	WWO2
513 Managing and maintaining a Microsoft Windows Server 2003 environment (70-290)	PS3.1	LP3.2	WWO2
514 Planning and maintaining a Microsoft Windows Server 2003 network infrastructure (70-293)	PS3.1	LP3.2	WWO2
515 Implementing, managing and maintaining a Microsoft Windows Server 2003 network infrastructure (70-291)	PS3.1	LP3.2	
516 CompTIA ICT systems security+	PS3.1	LP3.1	
517 CompTIA ICT systems network+	PS2.1, PS2.2, PS2.3	LP3.1, LP3.2, LP3.3	
518 CISCO CCNA1	PS2.1, PS2.2, PS2.3	LP3.1, LP3.2, LP3.3	
519 CISCO CCNA2	PS2.1, PS2.2, PS2.3	LP3.1, LP3.2, LP3.3	
520 CISCO CCNA3	PS2.1, PS2.2, PS2.3	LP3.1, LP3.2, LP3.3	
521 CISCO CCNA4	PS2.1, PS2.2, PS2.3	LP3.1, LP3.2, LP3.3	
522 Design and maintain ICT Networks software components	PS3.1, PS3.2, PS3.3	LP3.1, LP3.2, LP3.3	
523	PS3.1, PS3.2, PS3.3	LP3.1, LP3.2, LP3.3	
524	PS3.1, PS3.2, PS3.3	LP3.1, LP3.2, LP3.3	
525 CISCO CCENT	PS3.1, PS3.2, PS3.3	LP3.1, LP3.2, LP3.3	

6 Relationships to other qualifications

6.4 The wider curriculum

Candidates taking this qualification may also have the opportunity to cover the following aspects of the wider curriculum.

Unit No and Title	Spiritual, moral, ethical, social and cultural issues	European dimension	Environmental education	Health and safety
401 Maintain ICT equipment and systems	✓	✓	✓	✓
402 Customer support provision 2	✓			✓
403 Install and configure ICT equipment and operating systems	✓	✓	✓	✓
404 Install, configure and maintain software		✓	✓	✓
405 Testing ICT systems 2	✓			✓
406 ICT Systems monitoring and operation		✓		✓
407 ICT Repair centre procedure 2		✓	✓	✓
408 Install, configure and test ICT networks		✓		✓
416 Create automated procedures for ICT operating systems	✓	✓		✓
501 Plan for the delivery of ICT support services and assist in the acquisition of ICT systems	✓	✓	✓	✓

Unit No and Title	Spiritual, moral, ethical, social and cultural issues	European dimension	Environmental education	Health and safety
502 Customer support provision 3	✓			
503 Install, configure and integrate networked hardware and software	✓	✓	✓	✓
504 Install, configure and upgrade ICT software		✓	✓	✓
505 Testing ICT Systems 3	✓			✓
506 ICT Systems and network management	✓			✓
507 ICT Repair centre procedures 3	✓	✓	✓	✓
508 Develop ICT technical documentation and procedures	✓			✓
509 Principles of planning telecommunications systems	✓	✓	✓	✓
510 Maintain ICT equipment and systems 3	✓		✓	✓
511 Implementing an ICT systems security policy	✓	✓	✓	✓
522 Design and maintain ICT Networks software components	✓	✓	✓	✓

7 Assessment

7.1 Summary of assessment requirements

For this qualification, candidates must complete **one** assignment for each unit. Unit 401 also has an on-line multiple-choice test.

City & Guilds provides the following assessments:

- Online, on-demand testing using multiple choice questions
- Assignments versions A, B, C (stock code SP-7266- IA)
- A sample synoptic assignment can be downloaded from the SmartScreen section of the City & Guilds website.

Time constraints

All assignments must be completed and assessed within the learner's period of registration. Centres should advise learners of any internal timescales for the completion and marking of individual assignments.

Grading and marking

All multiple-choice on-line tests are graded pass/fail. Assignments will be graded pass, credit or distinction.

Detailed marking and grading criteria are provided in the Assessors' Guide for each assignment, these are available to download from the City & Guilds website at www.cityandguilds.com/e-quals07. These Assessors' Guides are password protected. Existing centres will be able to get the password, from their nearest City & Guilds Regional Office or the City & Guilds Contact Centre, when they send an email from a recognised centre email address. New centres will be given the password when they receive approval from City & Guilds to run the award.

All assignments are internally marked and graded.

Sample assessments

Sample assignments are available from our Smartscreen portal at www.smartscreen.co.uk.

8 Test specifications

8.1 Test specifications

The test specification for these units follow:

Test 451: Unit 401 Maintain ICT equipment and systems 2

Duration: 1 hour

Outcome number	Outcome	No of questions
1	Identify hazards of using ICT equipment and reduce risks to hardware and personnel	15
2	Identify failures of ICT equipment and apply remedial maintenance	12
3	Apply preventive maintenance to ICT hardware systems	13
	Total	40

9 Units

9.1 About the units

Availability of units

The units for this qualification are available to download from the City & Guilds website at www.cityandguilds.com/e-quals07.

Structure of units

The units in this qualification are written in a standard format and comprise the following:

- title
- unit reference
- rationale
- list of learning outcomes
- statement of guided learning hours
- connections with other qualifications, eg NVQs, key skills
- assessment details
- learning outcomes in detail expressed as practical skills and/ or underpinning knowledge

Appendix 1 Accreditation, national frameworks and qualification level descriptors

Please visit the following websites to find information on accreditation, national frameworks and qualification level descriptors in each country.

Nation	Who to contact	Website
England	The Qualifications and Curriculum Authority	www.qca.org.uk
Scotland	The Scottish Qualifications Authority	www.sqa.org.uk
Wales	The Department for Education, Lifelong Learning and Skills Wales (DELLS)	www.wales.gov.uk
Northern Ireland	The Council for Curriculum, Examinations and Assessment	www.ccea.org.uk

Appendix 2 Obtaining centre and qualification approval

Only approved organisations can offer City & Guilds qualifications. Organisations approved by City & Guilds are referred to as **centres**.

Centres must meet a set of quality criteria including:

- provision of adequate physical and human resources
- clear management information systems
- effective assessment and quality assurance procedures including candidate support and reliable recording systems.

An organisation that has not previously offered City & Guilds qualifications must apply for approval to become a centre. This is known as the **centre approval process (CAP)**. Centres also need approval to offer a specific qualification. This is known as the **qualification approval process (QAP)**, (previously known as scheme approval). In order to offer this qualification, organisations which are not already City & Guilds centres must apply for centre and qualification approval at the same time. Existing City & Guilds centres will only need to apply for qualification approval for the particular qualification.

Full details of the procedures and forms for applying for centre and qualification approval are given in *Providing City & Guilds qualifications - a guide to centre and qualification approval*, which is also available on the City & Guilds centre toolkit, or downloadable from the City & Guilds website.

Regional / national offices will support new centres and appoint a Quality Systems Consultant to guide the centre through the approval process. They will also provide details of the fees applicable for approvals.

Assessments must not be undertaken until qualification approval has been obtained.

City & Guilds reserves the right to withdraw qualification or centre approval for reasons of debt, malpractice or non-compliance with City & Guilds' policies, regulations, requirements, procedures and guidelines, or for any reason that may be detrimental to the maintenance of authentic, reliable and valid qualifications or that may prejudice the name of City & Guilds. Further details of the reasons for suspension and withdrawal of approval, procedures and timescales, are contained in *Providing City & Guilds qualifications*.

Approval for global online assessment (GOLA)

In addition to obtaining centre and qualification approval, centres are also required to set up a GOLA profile in order to offer online examinations to candidates. Setting up a GOLA profile is a simple process that need only be completed once by the centre.

Details of how to set up the profile and GOLA technical requirements are available on the City & Guilds website (www.cityandguilds.com/e-assessment). The GOLA section of the website also has details of the GOLA helpline for technical queries and downloads for centres and candidates about GOLA examinations.

Centres should also refer to *Providing City & Guilds qualifications - a guide to centre and qualification approval* for further information on GOLA.

Appendix 3 Summary of City & Guilds assessment policies

Health and safety

The requirement to follow safe working practices is an integral part of all City & Guilds qualifications and assessments, and it is the responsibility of centres to ensure that all relevant health and safety requirements are in place before candidates start practical assessments.

Should a candidate fail to follow health and safety practice and procedures during an assessment, the assessment must be stopped. The candidate should be informed that they have not reached the standard required to successfully pass the assessment and told the reason why. Candidates may retake the assessment at a later date, at the discretion of the centre. In case of any doubt, guidance should be sought from the external verifier.

Equal opportunities

It is a requirement of centre approval that centres have an equal opportunities policy (see *Providing City & Guilds qualifications*).

The regulatory authorities require City & Guilds to monitor centres to ensure that equal opportunity policies are being followed.

The City & Guilds equal opportunities policy is set out on the City & Guilds website, in *Providing City & Guilds qualifications*, in the *Online Catalogue*, and is also available from the City & Guilds Customer Relations department.

Access to qualifications on the National Qualifications Framework is open to all, irrespective of gender, race, creed, age or special needs. The centre co-ordinator should ensure that no candidate is subject to unfair discrimination on any ground in relation to access to assessment and the fairness of the assessment.

Access to assessment

Qualifications on the National Qualifications Framework are open to all, irrespective of gender, race, creed, age or special needs. The centre co-ordinator should ensure that no candidate is subject to unfair discrimination on any ground in relation to access to assessment and the fairness of the assessment.

City & Guilds' *Access to assessment and qualifications guidance and regulations* document is available on the City & Guilds website. It provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

Access arrangements are pre-assessment adjustments primarily based on history of need and provision, for instance the provision of a reader for a visually impaired candidate.

Special consideration refers to post-examination adjustments to reflect temporary illness, injury or indisposition at the time of the assessment.

Appeals

Centres must have their own, auditable, appeals procedure that must be explained to candidates during their induction. Appeals must be fully documented by the quality assurance co-ordinator and made available to the external verifier and/or City & Guilds.

Further information on appeals is given in *Providing City & Guilds qualifications*. There is also information on appeals for centres and learners on the City & Guilds website or available from the Customer Relations department.

Appendix 4 Funding

City & Guilds does not provide details on funding as this may vary between regions.

Centres should contact the appropriate funding body to check eligibility for funding and any regional/national arrangements which may apply to the centre or candidates.

For funding regulatory purposes, candidates should not be entered for a qualification of the same type, level and content as that of a qualification they already hold.

Please see the table below for where to find out more about the funding arrangements.

Nation	Who to contact	For higher level qualifications
England	<p>The Learning and Skills Council (LSC) is responsible for funding and planning education and training for over 16-year-olds. Each year the LSC publishes guidance on funding methodology and rates. There is separate guidance for further education and work-based learning.</p> <p>Further information on funding is available on the Learning and Skills Council website at www.lsc.gov.uk and, for funding for a specific qualification, on the Learning Aims Database http://providers.lsc.gov.uk/lad.</p>	<p>Contact the Higher Education Funding Council for England at www.hefce.ac.uk.</p>
Scotland	<p>Colleges should contact the Scottish Further Education Funding Council, at www.sfc.co.uk. Training providers should contact Scottish Enterprise at www.scottish-enterprise.com or one of the Local Enterprise Companies.</p>	<p>Contact the Scottish Higher Education Funding Council at www.shefc.ac.uk.</p>
Wales	<p>Centres should contact the Department for Education, Lifelong Learning and Skills (DELLS): www.wales.gov.uk</p>	<p>Centres should contact the Department for Education, Lifelong Learning and Skills (DELLS): www.new.wales.gov.uk</p>
Northern Ireland	<p>Please contact the Department for Employment and Learning at www.delni.gov.uk.</p>	<p>Please contact the Department for Employment and Learning at www.delni.gov.uk.</p>

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2787
F +44 (0)20 7294 2413
www.cityandguilds.com

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

SP-24-7266