

Higher Level Qualifications Level 4 Higher Professional Diploma in Information Management Using ICT (4447)

Guidance and units



Publications and enquiries

City & Guilds publications are available from

Publications Sales

City & Guilds

1 Giltspur Street

London

EC1A 9DD

T +44 (0)20 7294 2850

F +44 (0)20 7294 2400

General information about City & Guilds is available on our website **www.city-and-guilds.co.uk** or may be obtained from Customer Relations at the above address, or by telephoning 020 7294 2800, or by e-mailing **enquiry@city-and-guilds.co.uk**.

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*' is available on our website or from Customer Relations.

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.

©2004 The City and Guilds of London Institute. All rights reserved.
City & Guilds is a trademark of the City and Guilds of London Institute.

1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2468
F +44 (0)20 7294 2400
www.city-and-guilds.co.uk

Higher Level Qualifications Level 4 Higher Professional Diploma in Information Management Using ICT (4447)

Guidance and units

**Accredited by QCA as a Level 4 qualification within the
National Qualifications Framework**

This page is intentionally blank

Contents

Introduction and guidance

05	City & Guilds vocational schemes
06	City & Guilds Higher Level Qualifications
07	The scheme
07	General structure
11	Course planning and delivery
13	Entry requirements
13	Assessment
15	Approval of centres
16	The quality assurance system
18	Summary of registration and certification procedures
20	Appeals
20	Equal opportunities
20	Further progression with City & Guilds Senior Awards

The units

25	Unit 1 Project management
31	Unit 2 Develop ICT for Information Management
37	Unit 3 Support organisational Information Management
43	Unit 4 Extract value from ICT investment
49	Unit 5 Applying ICT to manage strategic information
55	Unit 6 Applying ICT to optimise business operations
61	Unit 7 Applying ICT to manage financial information
67	Unit 8 Applying ICT to manage marketing information
73	Unit 9 Applying ICT to manage support services information
79	Unit 10 Applying ICT to manage product/service delivery information
85	Unit 11 Provide ICT solutions for financial operations
91	Unit 12 Provide ICT solutions for marketing operations
97	Unit 13 Provide ICT solutions for support services operations
103	Unit 14 Evaluate ICT applications in marketing
109	Unit 15 Evaluate ICT applications in support services
115	Unit 16 Evaluate ICT applications in product/service delivery

Contents

Continued

Appendix A

121 Guidance on assignment design

Appendix B

125 QCA accreditation numbers

Introduction and guidance

1 City & Guilds vocational schemes

- 1.1 City & Guilds provides vocational certification for occupational areas at eight levels within its Progressive Structure of Awards.
- 1.2 City & Guilds has developed this scheme with the support of the City & Guilds National Advisory Committee for Senior and Higher Level Awards and a subject specific Steering Group which includes representation from Higher Education and practitioners in the sector.
- 1.3 City & Guilds does not itself provide courses but has a 120 year history of developing qualifications and providing Quality Assurance and has had a Royal Charter for these activities since 1900.

Guide to levels and qualifications

8	Level 8 Fellowship (FCGI)
7	Level 7 S/NVQ 7, Master Professional Diploma, Membership (MCGI), ILM Executive Diploma in Management
6	Level 6 S/NVQ 6, Graduateship (GCGI)/Associateship (ACGI)*
5	Level 5 S/NVQ 5
4	Level 4 S/NVQ 4, Higher Professional Certificate/Diploma, Licentiate (LCGI), ILM Diploma in Management
3	Level 3 S/NVQ 3, Advanced Professional Certificate, Advanced Vocational Certificate in Education, ILM Certificate in First Line Management, Pitman Qualifications – Advanced/Professional, Pitman Qualifications – Level 3
2	Level 2 S/NVQ 2, Intermediate GNVQ, ILM Certificate in Team Leading, Pitman Qualifications – Intermediate, Pitman Qualifications – Level 2
1	Level 1 S/NVQ 1, Foundation GNVQ, GCSE, Pitman Qualifications – Elementary/Essential, Pitman Qualifications – Level 1

*Only graduates of the City and Guilds College, Imperial College of Science, Technology and Medicine are awarded the Associateship (ACGI)

2 City & Guilds Higher Level Qualifications

- 2.1 The City & Guilds Higher Level Qualifications have been developed in response to:
- government initiatives to increase the numbers participating in higher level education and training and Lifelong Learning.
 - the emergence of QCA design principles for the submission of higher level vocational qualifications (excluding NVQs and degrees) onto the National Qualifications Framework.
 - a need from existing City & Guilds customers for higher level qualifications which offer a progression route from traditional level 3 and 4 qualifications.
 - a City & Guilds initiative to offer its customers the full range of vocational qualifications from the basic to the highest levels.
- 2.2 These qualifications have been designed to:
- combine the development of knowledge, understanding and skills in a variety of vocational areas.
 - equip the individual with a flexible programme of study which will provide the relevant level of knowledge and skills that are needed in the world of work.
 - meet the needs of industry and commerce and reflect the knowledge areas expressed in the relevant National Occupational Standards and/or professional standards.
- 2.3 The design of the Level 4 City & Guilds Higher Professional Diploma in Information Management Using ICT reflects an outcomes-based model that meets the requirements for Certificate Level (Level 1 HE) outcomes under the Framework for Higher Education Qualifications.
- 2.4 It is anticipated that potential candidates for these qualifications will currently be in work or have access to work placement but require a mechanism for the acquisition of relevant knowledge. In the first instance it is expected that many of these individuals will undertake the City & Guilds Higher Level Qualifications on a part-time basis, ie half day and evening, evenings only or as block release. However, there is also potential for these qualifications to be delivered as full-time programmes.
- 2.5 It is likely that these qualifications will be delivered in
- colleges
 - training organisations
 - higher education institutions
 - armed forces
- 2.6 In the future, City & Guilds plans to develop with partners a range of mechanisms such as website material and open-learning packages to promote flexible delivery to the individual where suitable materials do not already exist to support the Lifelong Learning agenda. In addition reference should be made to the 'Guidance' sections within the units.

- 2.7 Whilst some of the content covered in the units of the Professional Diploma in Information Management Using ICT can contribute to the underpinning knowledge of relevant national occupational standards. Effective delivery mechanisms could connect the delivery of units of either Award for candidates in a coherent, linked fashion.

3 The scheme

- 3.1 The **Higher Professional Diploma in Information Management:**
- is offered at Level 4 of the National Qualifications Framework
 - is designed to meet the needs of the high-achieving, work-based City & Guilds candidate
 - provides the opportunity for skills/craft acquisition, supervision and underpinning knowledge
 - reflects the knowledge areas expressed in the National Occupational Standards to ensure industry and QCA acceptability
 - provides the underpinning knowledge for the application and use of high level ICT skills for management
 - provides the facility for candidates to self-audit current skills and knowledge and recognise the higher level of ICT they need to keep themselves marketable
 - provides units which cover the skills and knowledge needed by employers such as project management, databases, networking technologies, future technology trends
 - comprises units which can be accredited separately and packaged into mini-awards tailored to the needs of the individual. Each unit has 100 hours of notional learning hours of which 40 should be guided learning hours
 - is assessed by means of centre-devised assignment
 - is externally moderated by City & Guilds.

4 General structure

- 4.1 In order to achieve a Higher Professional Diploma, candidates have to successfully complete 12 units as indicated in the award structure table. It has been designed as a 480 guided learning hours programme deliverable most probably part-time but possible as a full-time programme. An example of mode of study could be 2 years part-time (6.5 hours/week). The recommended total notional hours for this award (including guided learning hours) is 1200 hours (120 credits).

4.2 The award has been designed to provide a selection of units which will form the basis of a coherent and targeted course of study.

The award structure, which details mandatory and optional unit combinations, is shown below.

Award structure

Block A Mandatory	Block B Optional
ALL of:	SIX of :
Project Management Develop ICT for Information Management Support Organisational Management Extract Value from ICT Investment Applying ICT to Manage Strategic Information Applying ICT to Optimise Business Operations T	Applying ICT to Manage Financial Information Applying ICT to Manage Marketing Information Applying ICT to Manage Support Services Information Applying ICT to Manage Product/Service Delivery Information Provide ICT Solutions for Financial Operations Provide ICT Solutions for Marketing Operations Provide ICT Solutions for Support Services Operations Evaluate ICT Applications in Marketing Evaluate ICT Applications in Support Services Evaluate ICT Applications in Product/Service Delivery
12 units in total: Block A and 6 units from Block B	

4.3 Success in each unit within the qualification will be recognised by the issuing of a City & Guilds Certificate of Unit Credit. As indicated in the award structure, achievement of all 12 designated units will result in a City & Guilds Higher Professional Diploma being awarded.

4.4 As far as possible the units have been expressed in a standard format which fits with QCA Design Principles for Higher Level Vocational Qualifications. Each unit comprises

- **Unit title**
- **Unit summary**
- **Aims**
- **Outcomes** – statements of what the learner is expected to achieve

- **Unit content** – specifies all the learning the students need to apply and draw upon in order to be able to produce evidence indicated in the assessment section which addresses outcomes. In addition, it provides guidance to tutors in the design of their programmes and can be used a diagnostic tool to identify areas of weakness when candidates have not been able to achieve outcomes.
 - **Assessment** – specifies what candidates need to produce to show that they have met the outcomes. A form of evidence, eg a report, is indicated in this section but different forms of evidence such as a case-study, presentation, or piece of practical work accompanied by appropriate research and information gathering activity are valid as long as they provide the opportunity for candidates to produce evidence of comparable quantity and quality and to meet the same outcomes.
 - **Guidance** – on delivery, on assessment, links with other units/qualifications/professional body benchmarks, links with S/NVQs, resources. Guidance also on Key Skills Signposting – suggestions on where evidence could contribute to the Key Skills of Communication, Application of Number, Information Technology, Improving Own Learning and Performance, Working with Others, and Problem-Solving.
- 4.5 Each unit should be allocated one grade: **Pass, Merit** or **Distinction**. In order for candidates to achieve a **Pass**, it is necessary for them to produce evidence which clearly shows that all the assessment requirements (and therefore all the outcomes) have been met. In addition, the overall quality of the work in terms of sufficiency and currency should be of a satisfactory and reliable standard.
- 4.6 To gain a **Merit** grade, candidates will, in addition to meeting the **Pass** requirements, need to produce work which meets all the criteria detailed in the **Merit** column. To gain a **Distinction** grade, candidates will need to meet both the **Pass** and **Merit** requirements and produce a high standard of work as reflected in the **Distinction** column.
- 4.7 The criteria for **Merit** and **Distinction** focuses on the quality of work and the way in which it has been approached by candidates. The criteria have been written to specify the requirements in terms of ‘better’ (not ‘more’) work.

4.8 The grading criteria

4.8.i Unit grades

Each unit within the qualification should be graded on the following basis:

Pass: Candidates must meet the assessment requirements and outcomes in the unit specifications

Merit: Candidates must achieve a Pass and in addition at least 14 marks from the Merit descriptors in the table below.

Undertake research with minimum guidance from tutors/assessors (1) select and use a wide range of appropriate research sources (1) , record and analyse data/ information accurately (1) to draw valid conclusions (1)	4 marks
Present and analyse information and ideas accurately and clearly (2) , using a well-structured format and appropriate technical language (2)	4 marks
Demonstrate effective and consistent application and development of work-related skills (2) knowledge and understanding (2)	4 marks
Demonstrate management of time, resources and learning (2) and an ability to analyse and reflect upon own ideas and actions (2)	4 marks

Distinction: Candidates must achieve a Merit and in addition 16 marks from the Distinction descriptors in the table below

Define the focus and scope of research (1) , carry out research independently (1) evaluate the suitability of research sources and methods used (1) , analyse and verify data/information (1) to develop an appropriate work strategy (1)	5 marks
Consolidate and present complex information and concepts fluently and persuasively (2) with evidence of an original and imaginative approach (2)	4 marks
Evaluate and synthesise relevant work-related skills, knowledge and understanding (2) and use these to justify conclusions and recommendations (2)	4 marks
Demonstrate consistently good management of time, resources and learning (2) and an ability to identify areas for development and improvement by critically reflecting upon own ideas and actions (2) employ appropriate methods to resolve unpredictable problems (1)	5 marks

4.8.ii Calculating an overall grade for the qualification

Each unit grade achieved by the candidate should firstly be converted into points as follows:

Pass = 1

Merit = 2

Distinction = 3

Then, the **points** should be aggregated and converted into an overall score and corresponding grade for the whole qualification as follows:

12-17 points = **Pass**

18-27 points = **Merit**

28-36 points = **Distinction**

NB Achievement of all 12 units is necessary for the full award. It is therefore necessary for candidates to achieve a minimum of 1 point for each of the units.

5 Course planning and delivery

- 5.1 In terms of delivering Higher Level Qualifications, the emphasis is expected to be on the relationship between the content of the unit and the demands made on the individual by their existing or future job.
- 5.2 As long as the assessment requirements of units within the Higher Level Qualifications are met, tutors/lecturers can design courses of study in any way which they feel will meet the needs of their candidates as individuals. There are opportunities for aspects of Key Skills: Communication Skills, Application of Number, Information Technology, Working With Others, Improving Own Learning and Performance, and Problem Solving, to be covered as appropriate throughout the teaching programme. Please see the Guidance section within each unit.
- 5.3 It is essential that candidates and tutors/lecturers are aware of health and safety considerations at all times. The need to ensure that candidates preserve the health and safety of others as well as themselves, should be emphasised.
- 5.4 Equal opportunities issues are relevant to all units of study and these aspects should be explicitly addressed in the delivery and assessment of the programme.
- 5.5 Candidates are likely to come from a variety of backgrounds, in that they will have had different education, training and work experiences and they will also have differing ambitions and opportunities. Tutors/lecturers may therefore find it helpful to
 - conduct an initial assessment of achievement for each candidate, so that prior learning and experience can be established and assessment strategies agreed
 - consider the best approaches to learning for each candidate.

- 5.6 Tutors/lecturers need to make these judgements by referring to the requirements of Higher Level Qualifications and establish what candidates already know and can do to clarify where they need further preparation before assessment.
- 5.7 During the initial assessment tutors/lecturers are likely to consider what, if any
- previous educational qualifications the candidates have, what training they have had and in particular what experience they have had in relevant vocational programmes and Key Skills
 - previous and current practical work experience the candidate has which is relevant to the aims of the scheme and from which relevant skills and knowledge may have been informally acquired.
- 5.8 When selecting appropriate approaches to learning and locations tutors/lecturers are likely to consider the result of the initial assessment as well as the availability and suitability of open or distance learning materials and other resources, or co-operative working with other centres.
- 5.9 Effective communication between the tutor and candidate is a key component of successful delivery. It is important that candidates know for each assignment or activity, its purpose, the knowledge and skills required and the criteria for success. In addition, candidates should receive regular constructive feedback on their progress and achievement and also be provided with the opportunity to provide comments on their progress and course from their own personal perspective.
- 5.10 Some centres use a 'self-directed study' or 'negotiated approach' in terms of assignment design to enable candidates to tailor their response to a particular work opportunity or scenario. Tutors meet with candidates individually to discuss the learning outcomes of the unit and negotiate assignments which will allow the achievement of the criteria and relate to the candidate's work context or experience. Centres have the flexibility to work with candidates in terms of context of the assignment, focus of the design brief, or the presentation format of the assessment, as long as the specified requirements are met.
- 5.11 Consideration should be made regarding candidate access to certification for the Higher Level Qualification. In cases where the HLQ is the first part of a Foundation or (Honours) Degree, the candidate must be made aware of and enabled to gain certification of the HLQ part of the award by City & Guilds.

6 Entry requirements

- 6.1 City & Guilds Higher Level Qualifications have been designed primarily for those in work, or with access to work experience as the specifications are vocationally relevant to the needs of the sector. In addition, given the high level of understanding and skills required of the qualification, it is likely that in order for prospective candidates to cope with the demands of the programme and achieve their full potential, they will have acquired one of the following:
- City & Guilds 7261 Advanced Diploma
 - Advanced GNVQ or GCE Advanced Level
 - a level 3 vocational award
 - a level of expertise commensurate with Level 3 in the National Qualifications Framework which has been acquired through work experience and can be demonstrated through the City & Guilds APL procedure and/or appropriate certification. It is expected that individuals in this instance would have previously operated at supervisory level in the work environment in order to be able to progress to the Level 4 qualification and cope with the demands of the course.
- 6.2 In addition, prospective candidates should demonstrate that they are sufficiently mature, capable and motivated to meet the requirements of the programme and should be able to provide evidence of a range of relevant practical skills.

7 Assessment

- 7.1 Assessment is by means of centre-devised assignments which should provide the opportunity for the assessment requirements of the unit to be achieved. Please refer to Appendix A for guidance on assignment design.
- 7.2 Each unit has its own assessment which must be rigorous and fit for the purpose for which it is designed. The purpose of the assessment is for candidates to demonstrate that they have fulfilled the outcomes of the unit and achieved the standard required of the award they seek.
- 7.3 Assessment must reflect the achievement of the candidate in fulfilling the assessment requirements which are related to a consistent national standard. The assessment must therefore be carried out by competent and impartial assessors and by methods which enable them to assess a student fairly against the set requirements. This process will be monitored by the appointment to each centre of a City & Guilds External moderator who will be responsible for upholding the subject standards to a national level.
- 7.4 Centres are required to design a selection of assignments **prior to the start of the course**, so that there is an opportunity to obtain some feedback on their suitability from the Higher Level Qualifications External Moderator.
- 7.5 Assignments should be designed to provide candidates with the opportunity to meet the unit outcomes and, where applicable, the grading criteria.

- 7.6 It is important for centres to use an integrated approach (ie content which effectively links across two or more units) in relation to at least one assignment. There are a number of units which have links and could potentially form the basis for the development of an integrated assignment. Examples include:

Unit 1: Project Management and Unit 2: Develop ICT for Information Management

Unit 1: Project Management and Unit 12: Provide ICT Solutions for Marketing Operations

Unit 1: Project Management, Unit 2: Develop ICT for Information Management, and either

Unit 12: Provide ICT Solutions for Marketing Operations or Unit 13: Provide ICT Solutions for Support Services Operations

Unit 3: Support Organisational Management and Unit 6: Applying ICT to Optimise Business Operations

Unit 6: Applying ICT to Optimise Business Operations and Unit 13: Provide ICT Solutions for Support Services Operations

Where it is not possible or practical to cover all of the assessment requirements for each unit linked to the integrated assignment, it will be necessary for candidates to complete additional 'mini' assignments or 'top-up' activities to ensure that all the requirements have been met.

The approach to marking/assessing integrated assignments should enable an individual grade to be allocated to each unit covered, for the purposes of grading calculations, etc.

- 7.7 Assignment design should take account of opportunities for the **Merit** and **Distinction** criteria to be met for those candidates with the potential to achieve a higher grade. For instance, the grading descriptors (see Page 9) reflect the need for candidates to carry out research with increasing degrees of independence and also to take more responsibility for the learning process.
- 7.8 Centres must ensure that assignments relate to the assessment requirements and outcomes identified in the unit. Assignments (including any candidate guidance and marking criteria) must be available for scrutiny by the Higher Level Qualifications External Moderator and candidate evidence must be available for independent assessment during the Moderator's subsequent monitoring visits.

8 Approval of centres

8.1 Centre approval procedures

- a The scheme is open to any organisation which has been approved by City & Guilds to conduct the programme. Quality assurance includes initial centre approval, scheme approval, the centre's own procedures for monitoring quality and City & Guilds on-going monitoring by an External Moderator.

Organisations that are not approved to offer City & Guilds qualifications will be required to apply for both initial centre approval (City & Guilds Form CAP, following the HLQ guidance) as well as scheme approval (City & Guilds Form SAP, following the HLQ guidance). These applications should be made simultaneously.

Centres that already have centre approval will need to obtain scheme approval for each City & Guilds qualifications that they wish to offer, this includes the HLQs. In this case, only the Form SAP should be completed.

For new centres, there is a one-off centre approval fee which includes scheme approval for the first HLQ applied for by a centre. For existing centres, there is a scheme approval fee for each Higher Level Qualification applied for.

- b The centre must provide the following
 - i facilities adequate for the operational and administrative requirements of the scheme and a centre co-ordinator who will be the point of contact for City & Guilds
 - ii internal quality assurance procedures
 - iii approved assessors to conduct the assessments
 - iv facilities to offer assessments in all the units of the qualification for which they are approved
 - v suitable and available industry links/work experience opportunities for candidates if they are not currently employed.
- c An approval visit will be arranged and an External Moderator will check the centre has access to personnel, equipment, facilities and resources to provide appropriate delivery and assessments normally related to a practical workplace situation.
- d The centre must be able to provide secure arrangements for the storage of assessment documents and records, ensuring that the course tutor, co-ordinator/internal moderator, and external moderator all have access.
- e Approval will be valid for up to 4 years from the approval date and City & Guilds reserves the right to withdraw approval from the centre if the circumstances should alter from those agreed in the original submission, or there is a breakdown in the quality assurance system that would jeopardise a candidate's successful completion to the required standard.

8.2 Centre staff qualifications

It is important that centre staff involved in delivery and internal moderation have appropriate knowledge and skills to ensure effective delivery of Higher Level Qualifications. It is a requirement that centre staff have one or more of the following:

- Level 4/5 qualification ie Degree/HNC/HND/HPD or MPD/NVQ in an appropriate subject with 3 years relevant sector experience

or

- Level 3 qualification in an appropriate subject with 5 years relevant sector experience at senior/managerial level

or

- 7 years proven experience in the relevant sector at a managerial/senior level which could include recognised professional practice at a high level eg running a sector-related business or consultancy. (In certain circumstances this may be negotiable on discussion with the external moderator).

and

- A Cert Ed/equivalent teaching qualification and/or 2 years teaching/training experience

NB If additional experts (eg workplace practitioners) involved in the delivery of the programme do not have the necessary teaching qualifications or experience, it is necessary for any assessment they undertake to be second-marked by a qualified member of staff and form part of the internal moderation process.

9 The quality assurance system

9.1 It is important that centres have in place quality assurance systems to ensure optimum delivery of the Higher Level Qualifications. In addition, City & Guilds appoints a subject-specific External Moderator to monitor standards and provide advice and guidance. The following roles are key to the successful implementation and assessment of the schemes.

9.2 **The role of the scheme co-ordinator/internal moderator is to:**

- liaise with City & Guilds (including completion of Form HLQ APU – Approval Update – to notify City & Guilds of any change in details previously provided)
- ensure that all staff are appropriately qualified to deliver and assess the qualification
- plan and manage the implementation of the qualification
- ensure adequate resources are provided – both staff and materials
- keep staff who are involved in the delivery of the qualification informed of any changes to the scheme documentation made by City & Guilds
- establish and monitor candidate support systems
- ensure all staff carrying out assessment are familiar with and understand the specifications and assessment requirements
- discuss and ensure the implementation of any action agreed with the external moderator as a result of the outcomes of the approval or any subsequent visits

- ensure that assignments and candidate evidence are available and clearly organised and accessible for the External Moderator
- ensure that all City & Guilds documentation is completed when required
- manage the **internal moderation** process within the centre
- ensure that there is consistent interpretation of the requirements through standardisation procedures and meetings
- ensure that policies for equal opportunities, complaints and appeals are effectively operated
- provide feedback or relevant documentation relating to standardisation procedures to the external moderator

9.3 The **internal moderation** process should provide a sampled check of all aspects of the assessment process and should take account of:

- All candidates for each student group
- All tutors
- All assignments
- All forms of assessed work

All grades of performance

In addition, confidence in the validity, reliability, sufficiency and authenticity of the centre's assessment practice must be established by these internal checks. Consequently, they must show that work assessed as satisfactory or better is:

- the candidate's own work
- sufficient and appropriate to meet the requirements of the specification
- at the correct level
- free from assessor bias

One of the strategies to be included in internal moderation is double marking of a representative sample of candidates for each assignment.

9.4 **The role of the Tutor is to:**

- ensure that each candidate is fully briefed on the characteristics of this qualification (eg approach to assignments, delivery, grading etc)
- design assignments according to City & Guilds requirements which provide opportunities for the assessment requirements and where applicable, the grading criteria to be met
- assess the extent to which the candidate's work contains evidence demonstrating that the assessment requirements have been met
- exercise judgement on claims for Accreditation of Prior Learning (APL), as appropriate
- provide each candidate with prompt, accurate and constructive written feedback
- keep accurate and legible records
- assist in the centre's internal moderation by carrying out double marking, as required
- meet with the co-ordinator and other tutors to monitor, agree and maintain standards.

9.5 **When carrying out monitoring visits and external moderation visits, the External Moderator will carry out checks to ensure the following:**

- continued compliance with centre approval criteria
- effective scheme co-ordination
- effective internal quality assurance systems by sampling assessment activities, methods and records
- consistent interpretation of the specified standards
- appropriate and accurate grading of the completing candidates
- centre documentation meets the specified requirements
- effective appeals, complaints and equal opportunities provision.

9.6 **The role of the External Moderator in relation to assessment is to ensure that:**

- the assignments set by the centre are relevant, meet the specifications and are at the correct level.
- centres interpret assessment standards fairly, consistently and accurately
- centres are following the assessment specifications published by City & Guilds
- centre documentation meets the requirements of City & Guilds
- judgements on APL are fair, consistent and appropriate
- centres carry out internal moderation of candidate work.

The External Moderator will:

- independently assess a piece of work from every candidate, against the specifications and provide feedback
- sample and confirm grading decisions

and will require to see:

- a record of all units completed by candidates
- the assignments (including any candidate guidance and marking criteria) and internally assessed work by all candidates for whom the centre intends to seek certification
- a record of tutors showing their teaching/assessment responsibilities for the units
- evidence of internal moderation and standardisation procedures.

10 Summary of registration and certification procedures

10.1 Procedures should be followed in accordance with the current City & Guilds *Directory of Vocational Awards*.

10.2 Candidates must register and claim certification through a City & Guilds approved centre. There is the option to register candidates either for the full Higher Professional Diploma or individual units within it. Procedures for registration and certification for all City & Guilds awards are detailed in the *Directory of Vocational Awards*.

10.3 The Directory includes examples of all the required forms and also the requirements for Electronic Data Transfer.

- 10.4 There are specific procedures in place for appeals against results, which make clear the circumstances under which appeals may be made, the information required, and the procedures used to resolve them. Please refer to the *Directory of Vocational Awards* for further information.
- 10.5 City & Guilds fully supports the principles of equal opportunities, and the requirements as they affect centres and assessments are outlined in the *Directory of Vocational Awards*.
- 10.6 When candidates are first registered for a City & Guilds qualification they are issued with a unique, lifelong City & Guilds candidate enrolment (ENR) number.
- 10.7 On receipt of Form S (Registration), City & Guilds Entries and Results Processing Department will process and despatch details of registration, including the candidate enrolment (ENR) number, to the centre. The centre should ensure that the candidates are registered with City and Guilds **within 12 weeks** of enrolling at the centre. Please note that the external moderator will be unable to check any evidence from a candidate that has not been registered with City & Guilds for the qualification.
- 10.8 On receipt of Form S (Results) City & Guilds Entries and Results Processing Department will process and despatch details to centres. **Please note that final results should not be submitted until they have been agreed by the external moderator.**
- 10.9 Centres should note that, as certificates are prepared directly from these forms, it is essential that the **correct information** be supplied. Centres should always check carefully that the:
- centre name and number have been accurately recorded
 - correct award number and award name are included
 - correct complex and component numbers have been used
 - candidate details have been accurately recorded
- If further guidance is required when completing forms, it is recommended that advice from City & Guilds Entries and Results Processing Department be sought.
- 10.10 The centre should retain a copy of completed forms until certificates are received.
- 10.11 Any queries regarding the issue of results must be conducted through the centre and made to City & Guilds, Entries and Result Processing Department.

11 Appeals

- 11.1 This section relates to appeals against results from assessment of evidence.
- 11.2 It is a condition of centre approval that all centres must ensure that there is an appeals procedure available to candidates. The appeals procedure documentation must be included in the documentation sent to City & Guilds in the scheme approval submission. If a candidate appeals against the result of the assessment, the course tutor and the programme director should try to resolve the problem in the first instance. If, however, the problem cannot be satisfactorily resolved, the external moderator should be approached to offer independent advice. All appeals must be clearly documented by the centre co-ordinator and made available to the external moderator and/or City & Guilds as appropriate.
- 11.3 City & Guilds will not enter into direct correspondence with the individual candidates concerning the results of their assessments unless they wish to formally appeal to City & Guilds regarding assessment decisions using the designated procedures.
- 11.4 All appeals must be made to City & Guilds Head of Quality Services. Applications should be made as soon as possible after the assessment concerned and, at the latest, within three months of the issue of results.

12 Equal opportunities

- 12.1 Access to these qualifications is open to all entrants, irrespective of gender, race, creed, age or special needs. The course tutor will ensure that no candidate is subject to unfair discrimination on any of these grounds in relation to access to assessment. City & Guilds will monitor the administration of these qualifications through external moderation to ensure that this policy is adhered to.

13 Further progression with City & Guilds Senior Awards

City & Guilds offers a range of Senior Awards which accredit continuing professional development. Achieving a higher level qualification provides the opportunity to also gain a Senior Award as indicated below.

Award	University equivalent level	Available to holders of
Membership (MCGI)	Masters Degree	Master Professional Diploma + 10 yrs management/vocational experience
Graduateship (GCGI)	Honours Degree	Master Professional Diploma + 5 yrs management/vocational experience
Licentiatehip (LCGI)	Foundation Degree	Higher Professional Diploma + 5 yrs vocational experience

In order to gain the relevant Senior Award you will need to submit a copy of your Higher Level Qualification certificate, full CV and an endorsement of your experience from a senior manager.

All Senior Award holders receive a diploma, post nominal letters, and the opportunity to attend the yearly graduation ceremony.

If you would like more details please contact
Senior Awards
City & Guilds
1 Giltspur Street
London
EC1A 9DD
0207 294 8220
senior@city-and-guilds.co.uk

The units

The Higher Level Qualifications Department of City & Guilds has commissioned and developed this award, and City & Guilds has copyright on the content of all the units within the qualification. Consequently, none of this material can be used if not primarily as a City & Guilds Higher Level Qualification, and all candidates undertaking the units must therefore be registered with City & Guilds.

The following pages detail the unit specifications for this qualification.

This page is intentionally blank

Higher Level Qualifications Level 4 Higher Professional Diploma in Information Management Using ICT (4447)

The units

This page is intentionally blank

Unit 1

Project management

Unit summary

This unit is concerned with the assessment of project feasibility, including financial, organisational and ethical appraisal; the selection, deployment and supervision of project teams; the planning, resourcing and monitoring of projects, including the use of project management tools; and the implementation and successful completion and post-completion maintenance of projects.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

This unit aims to enable candidates to:

- Identify project strategies and plan and implement a project
- Identify how project teams work and are managed
- Acquire and practice the skills needed for successful project management
- Review a project on completion

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Use a life cycle model on which to base the development of an ICT project
- 2 Plan an ICT project/solution
- 3 Establish a project team and identify roles and responsibilities
- 4 Use management tools to maintain control and monitor a project
- 5 Review a project on completion and learn from the experience

Unit content

Outcome 1

Use a life cycle model on which to base the development of an ICT project

The candidate knows how to:

- Identify different life cycle models when developing a project eg systems life cycle, waterfall model, standard model
- Explain the function of each stage of the model eg analysis, design, testing, documentation, implementation, review

Outcome 2

Plan an ICT project/solution

The candidate knows how to:

- Undertake feasibility studies and risk analysis eg assessing project viability, timescales, existing ICT solutions available
- Take into consideration environmental and ethical issues
- Use management tools to undertake cost-benefit and breakeven analysis

Unit 1 Project management

- Check integration and interfacing with other systems in the organisation
- Collate the required inputs and outputs of the proposed solution
- Produce both outline and detailed specification requirements
- Review previous projects in this and other organisations to inform judgements about the likelihood of the project being successful
- Establish and document clear objective criteria on which the project will be judged

Outcome 3

Establish a project team and identify roles and responsibilities

The candidate knows how to:

- Assemble effective, coherent and cohesive project teams that capitalise on the strengths of individual members
- Identify general models of leadership and leadership behaviour
- Identify any training issues
- Establish clear lines of project management and responsibility eg project team leader, section leader
- Identify available and required resources that will support the project
- Ensure communication strategies are in place to support teams and to enable them to achieve goals eg newsletters, Intranet, meetings, visual aids for oral presentations
- Use standard software applications to manage the project and communicate with team members eg Microsoft Schedule or Lotus Notes, Microsoft Project, Project Scheduler, websites, email, spreadsheets, databases
- Document team meetings and bring to the attention of the project leader any difficulties that have arisen or may affect the project completion

Outcome 4

Use management tools to maintain control and monitor a project

The candidate knows how to:

- Identify and use the tools available to plan for successful monitoring and control of the project ie GANTT chart, Pert chart
- Back-up data prior to the implementation of any new software
- Identify any security issues and control unauthorised access to data during the development of the project
- Use team targets or milestones to monitor team progress against goals and adjust plans accordingly
- Report on progress, ensure adherence to agreed procedures and budgets and be accountable for performance against set goals
- Use phased roll-out methodologies in order to cause minimal disruption within the business
- Ensure that there is a robust and efficient reporting procedure/process in place that records any problems or errors that were missed ie during testing

Unit 1 Project management

Outcome 5

Review a project on completion and learn from the experience

The candidate knows how to:

- Check the final project against the original specification
- Accurately review the success or not of the project and produce a report that, where necessary, makes recommendations for the future development of the project or conduct for future project teams
- Distinguish between 'managing' and 'leading' a team
- Reflect on the goals set (objectives, targets, targets missed) and 'vision' in motivating and measuring team performance
- Identify any new training issues eg team members, users of software
- Ensure that performance by individuals and the team collectively met the required standards and any under performance is addressed
- Maintain data confidentiality, integrity and security and statutory obligations such as the Data Protection Act and Computer Misuse Act
- Comply with software licensing (Copyright Designs and Patents Act) and understand the role of FAST (Federation against software theft)
- Plan for post implementation reviews to confirm that the proposed benefits of the system have been delivered and the sponsor's expectations have been fulfilled

Assessment

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about project management and developed appropriate skills which they have been able to employ in leading or supporting a project team.

Assessment will be based on candidates having assisted a project team or acted as an internal consultant to a project team, and prepared materials to demonstrate the application of the skills and knowledge of project management, such as:

- a project report and supporting documentation; or
- a written account or an oral or audio-visual presentation on a project; or
- though some other record of learning and application

Where a candidate is not in a position to be part of a real project team, then a suitable scenario should be provided for the candidate.

The assessment of this unit can be combined with the assessment for Unit 2 Develop ICT for information management to form an integrated assignment.

Unit 1 Project management

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.
- C4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one formal oral presentation, including the use of two images to illustrate complex points

Working with Others

- WO4.1 Develop a strategy for using skills in working with others over an extended period of time

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Links with other units/qualifications

This unit has the following links with the National Occupational Standards for IT

Customer Systems Support Level 4

108 Manage Activities to Meet Requirements

111 Manage the Performance of Teams and Individuals

Developing IT Systems Level 4

401 Develop and Manage Your Own Effectiveness and Professionalism

Unit 1 Project management

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Andersen E S et al – *Goal Directed Project Management: Effective techniques and strategies* (Kogan Page, 1998)

Briner, W, Hastings, C and Geddes, M – *Project Leadership* (Gower, 1996)

Capper, R – *A Project by Project Approach to Quality* (Gower, 1998)

Graham B – *Practical Project Management* (Financial Times Management, 1997)

Harrison F L – *Advanced Project Management* (Gower, 1992)

Project Management: A systems approach to planning, scheduling and controlling (6th ed.) H Kerzner Van Nostrand (Reinhold Company, 1997)

People Side of Project Management R I Kliem & I S Ludin (Gower, 1995)

Reducing Project Risk R I Kliem & I S Ludin (Gower, 1997)

A Project Manager's Handbook G Lashbrooke (Kogan Page, 1992)

Project Planning, Scheduling and Control: A hands-on guide to bringing projects in on time and on budget J P Lewis (Irwin/McGraw Hill, 1995)

The Complete Guide to Business Risk Management K Sadgrove (Gower, 1996)

Gower Handbook of Project Management (3rd ed.) R Turner and S J Simister (Gower, 2000)

Unit 1 Project management

Managing Projects at Work G Webster (Gower, 1999)

Getting a project done on time: Managing people time and results P Williams
(Amacom, 1995)

www.ccta.gov.uk/prince/prince.htm (Government's PRINCE 2 PM system)

www.cranfield.ac.uk/cils/library/subjects/proman.htm (Links to other websites)

www.apmgroup.co.uk/theapm.htm (Association for PM)

Unit 2

Develop ICT for Information Management

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to develop information management systems within the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in the development of ICT systems in any area of a business to:

- Explain the principles of software/application specification and testing
- Recognise the need for documentation, quality and version control
- Identify the benefits in planning and reviewing new ICT projects/applications
- Demonstrate competence in using ICT applications and technologies
- Recognise the role of both managers and staff in workplace Health & Safety

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Produce a design specification that aids the implementation of an ICT solution
- 2 Select, use and manage a range of testing strategies
- 3 Identify the need for ICT projects to be fully documented and to ensure that quality and version controls are implemented
- 4 Select and use the most appropriate ICT application to fulfil an ICT solution
- 5 Demonstrate personal proficiency in health and safety, data protection and computer misuse procedures and practice

Unit content

Outcome 1

Produce a design specification that aids the implementation of an ICT solution

The candidate knows how to:

- Analyse and specify the requirements in relation to a new ICT solution including recovery, backup and security
- Consider ICT solutions that already exist within the business eg fit for purpose, modification to suit new purpose
- Determine the inputs and outputs that will be required, consult with those who will be actually using the ICT solution and those who will be responding to any information produced
- Ensure integration with existing ICT systems
- Meet with design teams and give clear requirements of the business needs
- Identify areas of expandability or future use within the business when designing solutions
- Use appropriate design methods for the type of ICT application being used eg Entity-Relationship Diagram (ERD), data dictionary, data types, validation, field size, screen layouts, print layouts

Unit 2 Develop ICT for Information Management

Outcome 2

Select, use and manage a range of testing strategies

The candidate knows how to:

- Using a standardised and rigorous approach when testing new ICT applications
- Explain the difference between bottom-up and top-down testing
- Distinguish between different testing strategies eg white box (logical), black box (functional), integration, recovery, performance
- Explain the difference between testing and debugging and their respective outcomes
- Create test data to test an ICT solution eg valid, invalid, extreme
- Identify the purpose of and use a test plan and test log
- Analyse the results from testing to make decisions or recommendations

Outcome 3

Identify the need for ICT projects to be fully documented and to ensure that quality and version controls are implemented

The candidate knows how to:

- Identify the purpose of quality control when developing ICT solutions
- Use version control when managing an ICT project
- Ensure that clear and unambiguous user manuals are produced that aid the end users within the organisation
- Identify the required contents of technical documentation
- Describe how technical documentation aids the future development and maintenance of ICT applications

Outcome 4

Select and use the most appropriate ICT application to fulfil an ICT solution

The candidate knows how to:

- Select and use ICT applications to support the development of an ICT solution eg word processor, spreadsheet, presentation software, desk top publishing, relational database, web design, e-commerce, web browser
- Select and use ICT communication technologies to support the development of an ICT solution eg e-mail, groupware, videoconference link, Personal Digital Assistant (PDA), mobile phone, Internet, intranet, network
- Transfer data between applications to support integration and sharing of information

Unit 2 Develop ICT for Information Management

Outcome 5

Demonstrate personal proficiency in health and safety, data protection and computer misuse procedures and practice

The candidate knows how to:

- Develop methods to ensure that personal knowledge of Health and Safety legislation in relation to ICT is current
- Promote personal proficiency by maintaining a safe working environment (eg ergonomics, workstations) and responding to potential hazards in the workplace
- Ensure that Health and Safety policy procedures are in place for the organisation
- Invoke procedures to ensure that any personal data held by the organisation is not divulged to unauthorised sources in compliance with the Data Protection Act
- Design and implement procedures to ensure employees are aware of their responsibilities towards data and information held by the organisation eg Computer Misuse Act

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about design, implementation and testing of ICT systems including appropriate legislation and developed appropriate skills, which they can use in the development of ICT solutions.

The candidate will be expected to produce the following

- evidence of design, documentation, implementation and testing of an ICT solution
- guidance document for staff working in ICT areas, outlining their responsibilities in relation to the Health and Safety at Work Act, Data Protection Act and Computer Misuse Act

The assessment of this unit can be combined with the assessment for Unit 1 Project Management and Unit 12 Provide ICT solutions for marketing operations OR Unit 13 Provide ICT solutions for support services operations to form an integrated assignment.

Unit 2 Develop ICT for Information Management

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication skills

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.
- PS4.3 Evaluate your overall strategy and present the outcomes from your work using a variety of methods.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has the following links with the National Occupational Standards for IT

Developing IT Systems Level 4

- 402 Develop and Manage Your Own Effectiveness and Professionalism
- 404 Control the Creation of Software Specifications
- 405 Control the Investigation of Customer Requirements
- 406 Control the Analysis of Customer Information

Unit 2 Develop ICT for Information Management

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Rockart, J.F. & De Long, D.W. (1988) *Executive Support Systems: the emergence of top management computer use* (Homewood Ill.: Dow Jones-Irwin). ISBN 0-87094-955-1

McKean, J. (1999) *Information Masters: secrets of the customer race*. (John Wiley & Sons; Chichester). ISBN 0-471-98801-4

Donovan, J.J. (1994) *Business Re-engineering with Information Technology: sustaining your business advantage* (PTR Prentice Hall; New Jersey). ISBN 0-13-125907-5

Lewis, D. (1999) *Information Overload: practical strategies for surviving in today's workplace*. (Penguin Books; London). ISBN 1-3579-10864-2

Bocij, P, Chaffrey, D, Greasley, A, Hickie, S. (1999) *Business Information Systems* (Financial Times Pitman Publishing) ISBN 0-273-63849-1

Note 1: candidates may find it useful to consult journals such as IT Consultant; Banking Technology; Management Today and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 3

Support organisational Information Management

Unit summary

This unit is concerned with the functions and services provided by business units within an organisation, the sources of information and the need for collaboration and communication between business units.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable candidates to:

- prepare a business plan to support business objectives
- analyse information from different business units to support the operational needs of an organisation
- present and distribute information in a suitable format

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Prepare a business plan that pursues business strategies, supports business objectives and provides a benchmark against which actual performance can be monitored and reviewed
- 2 Select and analyse marketing information to provide information to support the business objectives of an organisation
- 3 Select and analyse financial information to provide information to support the business objectives of an organisation
- 4 Select and analyse support services information to provide information to support the business objectives of an organisation

Unit content

Outcome 1

Prepare a business plan that pursues business strategies, supports business objectives and provides a benchmark against which actual performance can be monitored and reviewed

The candidate knows how to

- Consider an organisation's business objectives eg profitability, growth, credit control, liquidity, employee and customer satisfaction, when operational needs are being met
- Complete a business plan dependent on the organisation's business objectives selecting the relevant items to fulfil the requirements
 - present status ie achievements and performance eg sales, financial, technical
 - product/services offered
 - profiles of target markets eg size, segments, trends, competition and user/customer profiles

Unit 3 Support organisational Information Management

- marketing strategies, sales plans and projections
- technology and research and development eg progress, plans, resources and technological advances
- recruitment and training requirements
- distribution and service activities and/or manufacturing eg organisation, resources, costings etc
- management and administration eg structure, overhead costs
- financial projections eg summary profit and loss, cashflows, balance sheets and key performance indicators, predicted sales
- funding requirements eg possible sources, terms, projected return on the investment
- implementation eg major decision points, time scale and actions required by management and others to progress the plan
- recognise that a business plan provides a benchmark against which an organisation's actual performance is monitored
- present and distribute a business plan in a suitable format

Outcome 2

Select and analyse marketing information to provide information to support the business objectives of an organisation

The candidate knows how to:

- Describe the business operations performed by sales and marketing
 - taking customer orders and visiting customers
 - answering customer queries
 - undertaking sales promotion activities
 - preparation of sales forecasts and setting targets for salespersons
 - carrying out market investigations and surveys to inform sales and marketing decisions eg target market, pricing
 - gathering knowledge from external sources to gain information about competitors, market share and pricing
- Collect information from day-to-day activities for analysis to improve business services eg customer satisfaction, distribution methods, response times
- Analyse sales and marketing information to provide relevant, accurate and timely information
- Select and distribute information about sales and marketing operations to other business units in a suitable format
- Prepare a marketing plan using relevant data from other sources eg business plan, market research, sales forecasts, production schedules

Unit 3 Support organisational Information Management

Outcome 3

Select and analyse financial information to provide information to support the business objectives of an organisation

The candidate knows how to:

- Describe the business operations performed by finance to control the flow of money in the organisation
 - posting customer sales ledgers, send invoices and control of debtors (sales ledger)
 - payment of suppliers (purchase ledger)
 - payment of employees (payroll)
 - maintenance of nominal ledger
 - provision of audit trails
 - completion of returns on time eg PAYE, VAT, COMPANIES HOUSE
 - preparation of new budgets for the next financial year
 - controlling of budgets and monitoring of costs against pre-set budgets
- Collect information from day-to-day activities for analysis to improve business services eg sales, purchases, expenses, staff costs, budgets
- Analyse financial information to provide relevant, accurate and timely information
- Select and distribute information about financial operations to other business units in a suitable format

Outcome 4

Select and analyse support services information to provide information to support the business objectives of an organisation

The candidate knows how to:

- Describe the business operations performed by support services
 - planning of recruitment and staff development schedules
 - management, tracking and maintenance of assets and shared resources eg stock, meetings rooms, fleet of vehicles, networks, communication services, technical help desk
 - provision of legal services to ensure compliance with fiscal, regulatory and statutory obligations
 - tracking order progress and delivery of products
 - planning, scheduling and monitoring of production to maintain quality
 - provision of standards for procedures and documents
 - supply support for the operational needs of an organisation eg risk assessment, health and safety
- Collect information from day-to-day activities for analysis to improve business support services eg customer satisfaction, delivery and distribution of products, efficient use of shared resources
- Analyse support service information to provide relevant, accurate and timely information
- Select and distribute information about support service operations to other business units in a suitable format

Unit 3 Support organisational Information Management

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify the operational requirements for a new business unit, or an existing company that is producing a new product or expanding its sales area into a new region/country.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about functions, services and sources of information provided by business units and developed appropriate skills, which they can use in the analysis of information.

The candidate will be expected to produce the following

- presentation (oral or written) of a business plan
- presentation (oral or written) of a marketing plan
- analysis and distribution of information from a sales and marketing source
- analysis and distribution of information from a financial source
- analysis and distribution of information from a support services source

The assessment of this unit can be combined with the assessment for Unit 6

Optimise business operations by means of ICT to form an integrated assignment.

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.
- C4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one formal oral presentation, including the use of two images to illustrate complex points.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Unit 3 Support organisational Information Management

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.
- PS4.3 Evaluate your overall strategy and present the outcomes from your work using a variety of methods.

Application of Number

- N4.1 Develop a strategy for using application of number skills over an extended period of time.
- N4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a deductive and inferential reasoning
 - b algebraic manipulation

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has the following links with the National Occupational Standards for IT

Managing IT Systems Level 4

403 Develop and Manage Your Own Effectiveness and Professionalism

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Unit 3 Support organisational Information Management

Suggested reading list

Rockart, J.F. & De Long, D.W. (1988) *Executive Support Systems: the emergence of top management computer use* (Homewood Ill.: Dow Jones-Irwin). ISBN 0-87094-955-1

McKean, J. (1999) *Information Masters: secrets of the customer race*. (John Wiley & Sons; Chichester). ISBN 0-471-98801-4

Donovan, J.J. (1994) *Business Re-engineering with Information Technology: sustaining your business advantage* (PTR Prentice Hall; New Jersey). ISBN 0-13-125907-5

Lewis, D. (1999) *Information Overload: practical strategies for surviving in today's workplace*. (Penguin Books; London). ISBN 1-3579-10864-2

Bocij, P, Chaffrey, D, Greasley, A, Hickie, S. (1999) *Business Information Systems* (Financial Times Pitman Publishing) ISBN 0-273-63849-1

Note 1: candidates may find it useful to consult journals such as IT Consultant; Banking Technology; Management Today and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information eg business plan templates, from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

Unit 4

Extract value from ICT investment

Unit summary

This unit is about knowing how to measure and optimise your organisation's investment in information and communications technologies, services and devices (ICT).

This unit is designed from the standpoint that all ICT investment is intended to benefit the organisation as a whole. To ensure a proper return on this investment the resources must be used effectively, wherever they are employed within the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate responsible for organisational IT investment to:

- Apply an extended form of cost/benefit analysis to existing or proposed ICT investment
- Prepare and present a recommendation for ICT investment

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Identify ICT solutions that can reduce costs and/or improve revenues
- 2 Estimate and report the business value of a proposed ICT investment
- 3 Decide between several proposed ICT investments competing for the same budget
- 4 Present a recommendation for proposed ICT system investment to an audience

Unit content

Outcome 1

Identify ICT solutions that can reduce costs and/or improve revenues

The candidate knows how to:

- Identify a new ICT solution with the potential to transform the performance of an organisation eg an appropriate online training package; a resources management package; an innovatory application
- Identify the features required by the software to implement a new ICT solution
- Evaluate and report on several different software applications available to fulfil a new ICT solution
- Select a software application to fulfil a new ICT solution

Unit 4 Extract value from ICT investment

Outcome 2

Estimate and report the business value of a proposed ICT investment

The candidate knows how to:

- Distinguish between tangible and intangible costs and benefits
- Identify and evaluate the costs for a proposed ICT system eg
 - hardware
 - software
 - installation
 - environmental
 - running
 - maintenance
 - networking
 - security
 - training
- Identify and evaluate the benefits accrued from a proposed ICT system eg
 - improved customer service
 - gaining competitive edge and avoiding competitive disadvantage
 - support for core business functions
 - integration and compatibility with existing systems
 - improved product quality
 - improved system reliability
 - improved internal and/or external communication
 - improved management information
 - impact on the business through innovation
 - job enhancement for employees
- Carry out a cost/benefit analysis of a proposed ICT investment
- Identify and evaluate any risk factors involved in the implementation of a proposed ICT system

Outcome 3

Decide between several proposed ICT investments competing for the same budget

The candidate knows how to:

- Use an extended cost/benefit analysis method to choose between several proposed ICT investments competing for the same budget
- Document a recommendation for a proposed ICT system

Outcome 4

Present a recommendation for proposed ICT investment to an audience

The candidate knows how to:

- Select and use presentation software including appropriate graphics and charts
- Create a presentation that illustrates the costs and benefits for proposed ICT investment and justifies a recommendation
- Make the presentation of proposed ICT investment to an audience

Unit 4 Extract value from ICT investment

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify the business units within a company and the existing ICT systems within the specified business units. The existing ICT systems specified should allow scope for at least 3 new ICT systems to be identified by a candidate in different business units. A budget would be specified so that the candidate has to undertake a cost/benefit analysis and recommend the ICT system that would be of most benefit to the company and is within the budget limit set.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about costs and benefits for ICT systems and developed appropriate skills, which they can use in decision making for investment in ICT systems.

The candidate will be expected to produce the following

- Identification of 3 new ICT solutions with the potential to transform performance
- Identification of the features required by the software to implement the 3 new ICT solutions
- Evaluation and report on several different software applications available to fulfil the 3 new ICT solutions
- Evidence of selection of 3 software applications to fulfil the 3 new ICT solutions
- Cost/benefit analysis of proposed ICT investment for 3 new ICT solutions
- Identification and evaluation of any risk factors involved in the implementation of the 3 proposed ICT systems
- An extended cost/benefit analysis and selection of an ICT system proposed for investment
- Documentation of a recommendation for a proposed ICT system
- Presentation of proposed ICT investment to an audience

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.
- C4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one formal oral presentation, including the use of two images to illustrate complex points.

Unit 4 Extract value from ICT investment

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Application of Number

- N4.1 Develop a strategy for using application of number skills over an extended period of time.
- N4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a deductive and inferential reasoning
 - b algebraic manipulation

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

- 404 Develop and Manage Your Own Effectiveness and Professionalism
- 409 Evaluate Potential Information Technology Products and Services
- 414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Unit 4 Extract value from ICT investment

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Wilson, M. (1997) *The Information Edge: successful management using information technology*. (Pitman Publishing; London). ISBN 0-273-62584-5

Parker, M.M., Benson, R.J. & Trainor, H.E. (1988) *Information Economics: linking business performance to information technology*. (Prentice-Hall International; Englewood Cliffs, NJ). ISBN 0-13-465014-X

Keen, P.G.W. (1988) *Competing in Time: using telecommunications for competitive advantage* (Ballinger/Harper & Row). ISBN 0-88730-301-3

Mintzberg, H. (1983) *Structure in Fives: designing effective organisations*. (Prentice-Hall International, Inc.; London). ISBN 0-13-854191-4

Bocij, P, Chaffrey, D, Greasley, A, Hickie, S. (1999) *Business Information Systems* (Financial Times Pitman Publishing) ISBN 0-273-63849-1

Note 1: candidates may find it useful to consult journals such as Accountancy Today, Banking Technology and IT Consultant; relevant trade and professional magazines

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 5

Applying ICT to manage strategic information

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve information management within the strategic management area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in business strategy formulation to:

- Select and employ ICT solutions to gather more valuable strategic information
- Choose and use ICT solutions that help strategists to make winning decisions

Outcomes

On successful completion of the unit, the candidate will be able to:

- 1 Acquire and filter external information to separate information of potential strategic value
- 2 Acquire internal information to monitor the organisation's key performance indicators
- 3 Use ICT to combine information to be used in the decision making process
- 4 Use ICT to present and distribute information to colleagues

Unit content

Outcome 1

Acquire and filter external information to separate information of potential strategic value

The candidate knows how to:

- Use online information sources to acquire relevant information:
 - web search engines
 - online news-feeds
 - Internet discussion groups
 - personal email contacts
- Obtain and combine both relevant facts and rumours in a discriminating way that will lead to more knowledgeable business decisions
- Describe the type of external information that is relevant in the decision making process:
 - competitors' market share
 - competitors' prices
 - market behaviour
 - economic changes
 - fiscal, legal or political changes
- Use ICT techniques for filtering incoming information eg via the 'rules' feature of Microsoft Outlook Express
- Use ICT techniques for refining out-going searches eg Boolean logic with search engines

Unit 5 Applying ICT to manage strategic information

Outcome 2

Acquire internal information to monitor the organisation's key performance indicators

The candidate knows how to:

- select information to be used for performance measurement either for the organisation as a whole or for individual business units
- describe the types of information used for performance measurement:
 - customer feedback
 - sales
 - profit
 - staff retention rates
 - return on investment in staff training
 - return on IT investment
- describe how exception reporting is used to flag problems eg decline in profits

Outcome 3

Use ICT to combine information to be used in the decision making process

The candidate knows how to:

- import/export data between ICT applications
- gather, sort, analyse and evaluate information
- use a spreadsheet application 'what-if' scenario for analysis to evaluate the impact of a product price, salary or raw materials increase/decrease
- use a spreadsheet goal seek facility for analysis eg to evaluate how many extra salespeople are required to increase sales to a specified figure
- investigate and report on the role of expert systems in a decision making process eg financial risk management
- use a spreadsheet to provide graphs and/or charts to illustrate performance eg compare profit forecast with actual profit, sales trends, market share, compare sales forecast with actual sales
- select and evaluate a software application that combines data to animate a performance measurement method such as the Balanced Business Scorecard or the European Foundation for Quality Management model eg via a Microsoft 2000 'Digital Dashboard', an Enterprise Information System such as Comshare 'Commander'

Outcome 4

Use ICT to present and distribute information to colleagues

The candidate knows how to:

- Ensure that information is available when it is needed ie weekly, adhoc and where it is needed within the organisation
- Present accurate information in a format suitable for distribution
- Make recommendations for possible actions that could be taken
- Design a method of distribution for information sharing via a suitable communication medium eg intranet
- Use an ICT application to publish and distribute the results of information analysis and performance measurement

Unit 5 Applying ICT to manage strategic information

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify the definition of a problem within a company eg a decline in profits for a specified product within a specified sales region. The internal information should be supplied in an electronic format that allows the candidate to extract the required information.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about strategic management information and developed appropriate skills, which they can use in decision making by the use of ICT systems.

The candidate will be expected to produce the following

- evidence of acquisition and filtering of external information
- evidence of evaluation and analysis of internal and external information by means of
 - ‘what-if’ analysis
 - goal seek
 - graphs/charts
 - performance measurement methods
- investigation and report on the role of an expert system in a decision making process
- evidence of presentation and distribution of information analysis and performance measurements
- recommendations on possible actions that could be taken

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Unit 5 Applying ICT to manage strategic information

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Application of Number

- N4.1 Develop a strategy for using application of number skills over an extended period of time.
- N4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a deductive and inferential reasoning
 - b algebraic manipulation

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

405 Develop and Manage Your Own Effectiveness and Professionalism

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Unit 5 Applying ICT to manage strategic information

Suggested reading list

Orna, E. (1999) *Practical Information Policies: Second edition* (Gower Publishing; Aldershot). ISBN 0-566-07693-4

Skyrme, D. (1999) *Knowledge Networking: creating the collaborative enterprise*. Butterworth-Heinemann; Oxford). ISBN 0-7506-3976-8

Marchand, D.A., Davenport, T.H. & Dickson, T. eds (2000) *Mastering Information Management*. (Pearson Education; Harlow). ISBN 0-273-64352-5

Taylor, A. & Farrell, S. (1994) *Information Management for Business* (Aslib; London). ISBN 0 85142 313 2

Bocij, P, Chaffrey, D, Greasley, A, Hickie, S. (1999) *Business Information Systems* (Financial Times Pitman Publishing) ISBN 0-273-63849-1

Note 1: candidates may find it useful to consult journals such as *Information Management* (ASLIB); *Knowledge Management*; *Management Consultancy* and relevant trade and professional magazines

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 6

Applying ICT to optimise business operations

Unit summary

This unit is about knowing when and how to apply information and communications technologies to improve business operations within the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate to:

- Select and employ ICT solutions to improve business operations
- Choose and use an ICT solution for presenting business information
- Select an ICT solution for managing contacts and relationships
- Help the business exploit communication technologies
- Analyse information to respond to the operational needs of a business

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Use ICT to plan business operations
- 2 Evaluate and use ICT systems to organise and record business activities
- 3 Evaluate the use of communications technologies for dissemination of information and automation of sales transactions
- 4 Evaluate and use ICT to improve business operations

Unit content

Outcome 1

Use ICT to plan business operations

The candidate knows how to:

- Prepare and maintain a business plan for the organisation as a whole or a strategic business unit that reflects opportunities, competencies and risks in measurable form.
- Prepare a marketing plan using appropriate ICT to (a) format and present the plan and (b) import relevant data from other sources (eg the business plan; market research; sales forecasts; production schedules)
- Develop and use an application for applying 'what-if' scenarios to new business proposals and for comparing competing proposals. The solution will extend beyond cost/benefit analysis to take account of non-financial factors contributed by proposers and intended users. [note: 'Information Economics' (see reading list) offers a method that could be used as a basis]

Unit 6 Applying ICT to optimise business operations

Outcome 2

Evaluate and use ICT systems to organise and record business activities

The candidate knows how to:

- Evaluate database applications and ICT systems to organise customer records, track customer activity and maintain contact information
- Describe the need for integration between ICT applications to allow the import/export of data for use in other applications eg mail merge, accounts, market research
- Compare ICT methods for processing market research data
- Extract and present information from market research data in a suitable format to provide information of value to the business
- Select and use an ICT application to provide a breakeven analysis

Outcome 3

Evaluate the use of communications technologies for dissemination of information and automation of sales transactions

The candidate knows how to:

- Describe the benefits and drawbacks of using the Internet and/or intranet to publish company information eg financial, product, job vacancies
- Describe the costs involved in maintaining updated information on the Internet and/or intranet eg skills, training, time
- Understand the impact of electronic commerce on the future profitability of the business

Outcome 4

Evaluate and use ICT to improve business operations

The candidate knows how to:

- Identify and access online business intelligence services (industry-specific or general eg Economist Intelligence Unit; Reuters)
- Develop and monitor a human resources strategy to support the delivery of the business plan including staff development
- Design and operate an ICT system for measuring the achievement of business performance targets and for recognising and communicating the outcomes
- Identify and report on an ICT solution for maintaining and optimising the use of a selected category of business assets (eg transport fleet; plant & equipment; patents and other intellectual property; corporate information archives)

Unit 6 Applying ICT to optimise business operations

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify the operational requirements for a new business unit for instance to expand the sales area into another region/country.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about business operations and developed appropriate skills, which they can use in optimising business operations by the use of ICT systems.

The candidate will be expected to produce the following

- a business plan
- a marketing plan
- evidence of development and use of an application to produce a 'what-if' scenario
- evaluation of database applications and ICT systems for organising customer records, tracking customer activity and maintaining contact information
- comparison of ICT methods for processing market research data
- presentation of market research statistics
- a breakeven analysis
- proposals for the use of Internet and/or intranet for communication of specified information and the requirements for the maintenance of the information
- evaluation of the costs and benefits of e-commerce for sales transactions
- evidence of use of online business intelligence services
- development of a human resources strategy
- design and operation of an ICT system to measure the achievement of business performance targets and recognise and communicate the outcomes
- report on an ICT solution for maintaining and optimising the use of a selected category of business assets

The assessment of this unit can be combined with the assessment for Unit 3 Support organisational information management to form an integrated assignment.

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
- a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Unit 6 Applying ICT to optimise business operations

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Application of Number

- N4.1 Develop a strategy for using application of number skills over an extended period of time.
- N4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a deductive and inferential reasoning
 - b algebraic manipulation

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

406 Develop and Manage Your Own Effectiveness and Professionalism

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Unit 6 Applying ICT to optimise business operations

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Czerniawska, F. & Potter, G. (1998) *Business in a Virtual World: exploiting information for competitive advantage*. (Macmillan Press; Basingstoke). ISBN 0-333-72121-7

Parker, M.M., Benson, R.J. & Trainor, H.E. (1988) *Information Economics: linking business performance to information technology*. (Prentice-Hall International). ISBN 0 13 465014 X

Christensen, C.M. (1997) *The Innovator's Dilemma: when new technologies cause great firms to fail*. (Harvard Business School Press; Boston, Mass.) ISBN 0-87584-585-1

Keen, P.G.W. (1991) *Shaping the Future: business design through information technology*. (Harvard Business School Press). ISBN 0-87584-237-2

Note 1: candidates may find it useful to consult journals of accountancy professional bodies; Management Today, Long Range Planning and magazines such as Information Age

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com).

This page is intentionally blank

Unit 7

Applying ICT to manage financial information

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve information management within the finance area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in providing support services to the business to:

- Select and employ ICT solutions to enhance information management within finance activities
- Choose and use ICT solutions to improve the presentation of clear and actionable financial information to the right people at the right time

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Combine data processing tools with communications technologies to augment the acquisition of financial information about customers, suppliers and competitors and its distribution
- 2 Develop tools that enable managers to select, cross-tabulate and view combinations of data produced in different functional areas of the business
- 3 Select and operate tools for setting up and maintaining a web page on a corporate intranet for communicating financial information across the enterprise
- 4 Improve the quality of financial reporting by using ICT to integrate financial information with the qualitative data collected by the organisation's other functional activities

Unit content

Outcome 1

Combine data processing tools with communications technologies to augment the acquisition of financial information about customers, suppliers and competitors and its distribution

The candidate knows how to:

- Use communication tools to search for and obtain information from external sources eg company reports and qualitative data such as newsfeeds
- Obtain internal information about customers and suppliers eg staff reports of interactions with third parties, purchases and sales, credit status
- Store and organise information about customers, suppliers and competitors
- Add meaning and context to company financial information
- Create a report to include charts/graphs to illustrate the sales statistics

Unit 7 Applying ICT to manage financial information

- Use communications tools (eg e-mail, world wide web, Lotus Notes) to distribute information
- Implement procedures that monitor external events that could impact on the company eg fiscal/legal/political changes, market behaviour, competitor activity

Outcome 2

Develop tools that enable managers to select, cross-tabulate and view combinations of data produced in different functional areas of the business

The candidate knows how to:

- Describe the purpose and main features of an Executive Information System
- Evaluate and select an Executive Information Systems for combining and presenting relevant and timely business information
- Use an Executive Information System to highlight trends to the people in the organisation who need to act upon such information eg sales, service delivery costs, market share, profit
- Use an Executive Information System to highlight exceptions to the people in the organisation who need to act upon such information eg decrease in sales or profits

Outcome 3

Select and operate tools for setting up and maintaining a web page on a corporate intranet for communicating financial information across the enterprise

The candidate knows how to:

- Appreciate the capability of an intranet as a mechanism for communicating the business's financial policy, accounting standards, rules, guidelines, up-to-date financial information and standard forms
- Describe Internet Protocols, security and access controls and the basic principles of web page design
- Design and set up a web page for use on an intranet

Outcome 4

Improve the quality of financial reporting by using ICT to integrate financial information with the qualitative data collected by the organisation's other functional activities

The candidate knows how to:

- Distinguish between ICT integrated suites aimed at different markets eg for smaller businesses, products as supplied by (eg) Sage; for larger organisations, an Enterprise Resource Planning package (eg) SAP
- Evaluate and select an appropriate integrated suite suited to the size of an organisation.
- Use ICT to present financial information in forms that are more meaningful to non-financial managers
- Understand and use the capabilities of an integrated suite to generate textual reports with embedded spreadsheets and charts/graphs to emphasise and explain key financial information

Unit 7 Applying ICT to manage financial information

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could be a food retailer where financial information about customers, suppliers and competitors is required and evaluation and selection of a suitable Executive Information System to highlight trends and exceptions and the design and publication of relevant and accurate financial information on an existing intranet eg policy, standards, rules, guidelines, financial information or standard forms.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems used in financial operations and developed appropriate skills, which they can use to manage ICT solutions for financial operations.

The candidate will be expected to produce the following

- Report showing financial information about customers, suppliers and competitors presented in a meaningful and understandable way using an integrated suite with embedded spreadsheets and charts/graphs and distributed electronically eg as an e-mail attachment
- Evaluation and selection of a suitable Executive Information Systems detailing its main features
- Design and set up of a web page for an intranet to display relevant and accurate financial information

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.
- C4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one formal oral presentation, including the use of two images to illustrate complex points.

Unit 7 Applying ICT to manage financial information

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Application of Number

- N4.1 Develop a strategy for using application of number skills over an extended period of time.
- N4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a deductive and inferential reasoning
 - b algebraic manipulation

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

407 Develop and Manage Your Own Effectiveness and Professionalism

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Unit 7 Applying ICT to manage financial information

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Orna, E. (1999) *Practical Information Policies: Second edition* (Gower Publishing; Aldershot). ISBN 0-566-07693-4

Skyrme, D. (1999) *Knowledge Networking: creating the collaborative enterprise*. Butterworth-Heinemann; Oxford). ISBN 0-7506-3976-8

Marchand, D.A., Davenport, T.H. & Dickson, T. eds (2000) *Mastering Information Management*. (Pearson Education; Harlow). ISBN 0-273-64352-5

Taylor, A. & Farrell, S. (1994) *Information Management for Business* (Aslib; London). ISBN 0 85142 313 2

Bocij, P, Chaffrey, D, Greasley, A, Hickie, S. (1999) *Business Information Systems* (Financial Times Pitman Publishing) ISBN 0-273-63849-1

Note 1: candidates may find it useful to consult journals such as Information Management (ASLIB); Knowledge Management; Management Consultancy and relevant trade and professional magazines

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

Note 3: the annual reports of publicly-quoted UK companies are available online from proprietary sources or free from The Financial Times via www.icbinc.com/cgi-bin/ft.pl

This page is intentionally blank

Unit 8

Applying ICT to manage marketing information

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve information management within the marketing area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in marketing to:

- Select and employ ICT solutions to enhance information management within marketing activities
- Choose and use ICT solutions to enhance the effectiveness of marketing communications

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Use ICT to gather and process market research data in order to position a new product at the right price in a target market
- 2 Select and operate ICT tools for collating and analysing sales data to inform price, promotion and range reviews
- 3 Design and apply appropriate ICT to support and accelerate the collaborative development and market testing of new products and services
- 4 Employ ICT techniques that help marketers to locate and filter published information that could influence the organisation's current and future products

Unit content

Outcome 1

Use ICT to gather and process market research data in order to position a new product at the right price in a target market

The candidate knows how to:

- Use communication tools to search and obtain information from external sources about a target market eg population growth, age groups, competitors market share, price
- Obtain internal information about a target market from customer information eg customer purchases, age groups
- Use ICT tools to store, organise and analyse information about the market potential
- Create a presentation to show the findings from analysis of market research data to include charts/graphs
- Present and make recommendations about the size of the target market and the pricing strategy of a product

Unit 8 Applying ICT to manage marketing information

Outcome 2

Select and operate ICT tools for collating and analysing sales data to inform price, promotion and range reviews

The candidate knows how to:

- Gather, store and organise daily sales data
- Analyse daily sales data to gain meaningful marketing information eg age range, customer spending, customer purchasing preferences
- Design, develop and deploy an ICT system for analysing daily sales data so that meaningful and actionable views can be presented swiftly to senior management and to relevant functional departments such as purchasing, operations and sales [guidance note: investigate and draw on solutions developed by market leaders in the retail food and garment trades]

Outcome 3

Design and apply appropriate ICT to support and accelerate the collaborative development and market testing of new products and services

The candidate knows how to:

- Design and develop an ICT system for capturing and ranking ideas for new products/services from employees, suppliers and customers
- Gather and process informed opinion about the market potential of promising options. [guidance note: consider proprietary solutions such as Idea Central via www.imaginatik.com]

Outcome 4

Employ ICT techniques that help marketers to locate and filter published information that could influence the organisation's current and future products

The candidate knows how to:

- Evaluate ICT methods for enhanced scanning by marketers of the wider business environment without provoking 'information overload'
- Examine and rate the effectiveness of proprietary tools such as
 - metasearch engines eg www.ixquick.com or www.copernic.com
 - 'intelligent agents' eg Autonomy (www.autonomy.co.uk)

Unit 8 Applying ICT to manage marketing information

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could outline an organisation that wants to increase its product range to target a wider customer age range and increase sales to its existing customer base.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems used in marketing and developed appropriate skills, which they can use to manage ICT solutions for marketing.

The candidate will be expected to produce the following

- Presentation to show the findings from analysis of market research data for the target market including charts/graphs
- Evidence of the design and development of an ICT system for analysing daily sales data to provide meaningful information for future sales promotions
- Evidence of the design and development of an ICT system for capturing and ranking ideas for new products/services
- Evaluation of the use of ICT methods for market research using propriety tools

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.
- C4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one formal oral presentation, including the use of two images to illustrate complex points.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Unit 8 Applying ICT to manage marketing information

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Application of Number

- N4.1 Develop a strategy for using application of number skills over an extended period of time.
- N4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a deductive and inferential reasoning
 - b algebraic manipulation

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

- 408 Develop and Manage Your Own Effectiveness and Professionalism
- 409 Evaluate Potential Information Technology Products and Services
- 414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Unit 8 Applying ICT to manage marketing information

Suggested reading list

Czerniawska, F. & Potter, G. (1998) *Business in a Virtual World: exploiting information for competitive advantage*. (Macmillan Press; Basingstoke). ISBN 0-333-72121-7

Marchand, D.A., Davenport, T.H. & Dickson, T. eds (2000) *Mastering Information Management*. (Pearson Education; Harlow). ISBN 0-273-64352-5

Taylor, A. & Farrell, S. (1994) *Information Management for Business* (Aslib; London). ISBN 0 85142 313 2

Hamel, G. & Prahalad, C.K. (1994) *Competing for the Future: Breakthrough strategies for seizing control of your industry and creating markets of tomorrow* (Harvard Business School Press; USA). ISBN 0 87584 416 2

Bocij, P, Chaffrey, D, Greasley, A, Hickie, S. (1999) *Business Information Systems* (Financial Times Pitman Publishing) ISBN 0-273-63849-1

Note 1: candidates may find it useful to consult journals such as Information Management, Marketing Today, Management Today and relevant trade and professional magazines

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 9

Applying ICT to manage support service information

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve information management within the support services area of the organisation.

In this context 'support services' means all service provision required to support strategic direction and the core operational roles of finance, marketing and service delivery. Such provision would include eg human resources management, training, technical infrastructure, PR, legal services, purchasing, estimating, transport and facilities management

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in providing support services to the business to:

- select and employ ICT solutions to enhance information management within support services activities
- choose and use ICT solutions to raise the quality and availability of information produced for the benefit of operational areas of the business

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Choose and employ appropriate ICT to help gear recruitment and training plans to marketing plans, forecast sales and scheduled production
- 2 Select and operate an ICT solution for gathering, and collating for evaluation, suggestions and ideas for business improvement subscribed by stakeholders
- 3 Deploy and manage online or computer-based training modules to support staff self-development
- 4 Evaluate and use ICT to share information that makes it easier to plan meetings and co-ordinate events for diary co-ordination, time planning and holiday scheduling

Unit 9 Applying ICT to manage support service information

Unit content

Outcome 1

Choose and employ appropriate ICT to help gear recruitment and training plans to marketing plans, forecast sales and scheduled production

The candidate knows how to:

- Import business plans and budget information from business units to aid the production of recruitment and training schedules
- Select an ICT integrated suite suitable for the development and maintenance of schedules for recruitment and training
- Design and operate an ICT application to implement recruitment and training schedules

Outcome 2

Select and operate an ICT solution for gathering, and collating for evaluation, suggestions and ideas for business improvement subscribed by stakeholders

The candidate knows how to:

- Identify processes for generating suggestions and ideas for business improvement from stakeholders eg questionnaires, forms published on the Internet or intranet
- Select an ICT application that can be configured to support a process by which stakeholders can submit business improvement suggestions for evaluation, selective development and reward eg via Lotus Notes, Microsoft Outlook or a web site
- Collect, collate and evaluate business improvement suggestions

Outcome 3

Deploy and manage online or computer-based training modules to support staff self development

The candidate knows how to:

- Identify staff development requirements within an organisation eg new staff, new business unit, installation of new ICT system
- Evaluate computer-based techniques for delivering training modules eg courseware supplied on CD-Rom, courseware hosted online by an application service provider
- Evaluate the content and quality of a computer based training module for a selected application area eg spreadsheet, word processing, web design, accounting, call centre
- Select a computer based training module suitable for staff development for a selected application area eg spreadsheet, word processing, web design, accounting, call centre

Unit 9 Applying ICT to manage support service information

Outcome 4

Evaluate and use ICT to share information that makes it easier to plan meetings and co-ordinate events for diary co-ordination, time planning and holiday scheduling

The candidate knows how to:

- Describe the process of sharing information eg calendars, resources and contact information, across a network
- Evaluate ICT techniques and applications for coordinated booking and scheduling of events and resources
- Select and use an ICT application that increases productivity by enabling staff to coordinate booking and scheduling of events and resources

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify an organisation that has a high staff turnover with requirements for staff training in specified areas eg web site design, call centre, accounting and spreadsheets and is planning a new business operation eg web site design and maintenance. A staff suggestion scheme has been implemented and due to the large number of responses requires an ICT solution for the evaluation and selection of the responses. There has been a problem, in the past, with coordinating shared resources and events and a centralised coordinated ICT solution is required.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about support service operations and developed appropriate skills, which they can use to manage ICT solutions for support services.

The candidate will be expected to produce the following

- recruitment and training schedules
- evaluation of suggestions and ideas for business improvement
- evaluation and selection of 2 training modules suitable for staff development
- report on the use of an ICT application for coordination of booking and scheduling of events and resources

Unit 9 Applying ICT to manage support service information

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

409 Develop and Manage Your Own Effectiveness and Professionalism

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Unit 9 Applying ICT to manage support service information

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Orna, E. (1999) *Practical Information Policies: Second edition* (Gower Publishing; Aldershot). ISBN 0-566-07693-4

Skyrme, D. (1999) *Knowledge Networking: creating the collaborative enterprise*. Butterworth-Heinemann; Oxford). ISBN 0-7506-3976-8

Marchand, D.A., Davenport, T.H. & Dickson, T. eds (2000) *Mastering Information Management*. (Pearson Education; Harlow). ISBN 0-273-64352-5

Taylor, A. & Farrell, S. (1994) *Information Management for Business* (Aslib; London). ISBN 0 85142 313 2

Note 1: candidates may find it useful to consult journals such as Information Management (ASLIB); Knowledge Management; Management Consultancy and relevant trade and professional magazines

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 10

Applying ICT to manage product/service delivery information

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve information management within the product/service delivery area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in product/service delivery to:

- select and employ ICT solutions to raise the efficiency of product/service delivery activities
- choose and use ICT solutions to simplify and enhance interactions with customers

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Choose and employ appropriate ICT to enable customer-facing staff to locate and retrieve relevant information required to fulfil the task in hand
- 2 Design and monitor ICT-enabled techniques to ensure that security and privacy standards relating to customer information are upheld
- 3 Develop and monitor a system for ensuring that product/service delivery process information is accurate and necessary
- 4 Identify and report on the capabilities of new types of computing devices to improve the productivity and efficiency of product/service delivery activities
- 5 Assess and advise on new ICT-enabled methods for making/receiving instant payment for products and services

Unit content

Outcome 1

Choose and employ appropriate ICT to enable customer-facing staff to locate and retrieve relevant information required to fulfil the task in hand

The candidate knows how to:

- Describe the processes involved in computer-integrated telephony systems to locate and retrieve information
- Investigate and evaluate the uses of computer-integrated telephony systems for
 - call centre
 - help desk
 - progress chasing department
 - web enabled delivery tracking system
- Monitor computer-integrated telephony to ensure a satisfactory answer is given to most inquiries during the interaction with a customer

Unit 10 Applying ICT to manage product/service delivery information

Outcome 2

Design and monitor ICT-enabled techniques to ensure that security and privacy standards relating to customer information are upheld

The candidate knows how to:

- Describe ICT techniques to ensure confidentiality, data security and integrity eg backup, password, virus protection
- Design and operate a software application that deploys electronic forms to ensure that customer data collection complies with legal requirements

Outcome 3

Develop and monitor a system for ensuring that product/service delivery process information is accurate and necessary

The candidate knows how to:

- Describe the process of archiving information by deleting information from a current live source and storing it in an archive
- Investigate and evaluate an ICT solution which enables a customer to view and edit information an organisation holds about them
- Investigate and evaluate an ICT solution that automatically archives and sorts electronically stored information that has not been accessed recently eg for 6 months

Outcome 4

Identify and report on the capabilities of new types of computing devices to improve the productivity and efficiency of product/service delivery activities

The candidate knows how to:

- Investigate the facilities provided by and the uses of the following devices
 - tool incorporating a barcode reader
 - hand-held device to aid stock control/pick-listing with docking facilities
 - Personal Digital Assistant with built-in modem
 - WAP-enabled mobile telephone
 - kiosk with touch-screen computer
 - retinal image/finger-print/voice recognition system
 - machine controlled by a computer-assisted design/manufacturing system
- Report on computing devices with the potential to improve product/service delivery productivity and efficiency.

Unit 10 Applying ICT to manage product/service delivery information

Outcome 5

Assess and advise on new ICT-enabled methods for making/receiving instant payment for products and services

The candidate knows how to:

- Investigate and evaluate a secure system for credit card payments and order processing over the web
- Investigate and evaluate a smartcard/digital cash card system
- Investigate and evaluate a system that pays suppliers for an assembled product as it exits the production line
- Assess and advise on the implications of new ICT-enabled methods for making or receiving instant payment for products and services

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify an organisation that uses specified ICT systems for the main business processes but is considering implementing new ICT solutions. The new ICT systems and devices proposed and to be investigated would cover a call centre, archiving of unused data, automation of more frequent stock control checking, barcode reading of products so that orders can be tracked, the provision of a web site for electronic order processing and payment and supply of Personal Digital Assistants with modems to sales staff. An ICT system for data collection from customers including security measures would be designed and implemented.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about product service delivery and developed appropriate skills, which they can use in managing ICT solutions for product/service delivery.

The candidate will be expected to produce the following

- report defining the requirements in terms of devices and software and detailing any benefits or drawbacks from the point of view of the organisation and its customers from the ICT solution for
 - a call centre
 - archiving of unused data
 - automation of more frequent stock control checking
 - an order tracking system using a barcode reader
 - a web site for electronic order processing and payment
- evaluation of the benefits to be gained from the use of a Personal Digital Assistant with modem by sales staff
- evidence of design and operation of a software application for data collection from customers that includes security measures

Unit 10 Applying ICT to manage product/service delivery information

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.
- C4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one formal oral presentation, including the use of two images to illustrate complex points.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

410 Develop and Manage Your Own Effectiveness and Professionalism

405 Control the Investigation of Customer Requirements

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Unit 10 Applying ICT to manage product/service delivery information

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Orna, E. (1999) *Practical Information Policies: Second edition* (Gower Publishing; Aldershot). ISBN 0-566-07693-4

Skyrme, D. (1999) *Knowledge Networking: creating the collaborative enterprise*. Butterworth-Heinemann; Oxford). ISBN 0-7506-3976-8

Marchand, D.A., Davenport, T.H. & Dickson, T. eds (2000) *Mastering Information Management*. (Pearson Education; Harlow). ISBN 0-273-64352-5

Taylor, A. & Farrell, S. (1994) *Information Management for Business* (Aslib; London). ISBN 0 85142 313 2

Note 1: candidates may find it useful to consult journals such as Information Management (ASLIB); Knowledge Management; Management Consultancy and relevant trade and professional magazines

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 11

Provide ICT solutions for financial operations

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve problem-solving within the financial area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in the finance function to:

- select and employ an appropriate ICT solution to a financial problem encountered
- recognise when a non-ICT solution could be more effective
- identify ways in which best practices in problem-solving using ICT can be shared
- exploit ICT to manage and preserve financial information and assets more effectively

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Employ a range of ICT techniques to minimise potentially damaging problems
- 2 Evaluate alternative ICT solutions to meet set criteria for the accuracy, availability, timeliness and presentation of financial information
- 3 Use ICT-mediated techniques to preserve mandatory records and to submit statutory and regulatory returns
- 4 Select and operate a statistical analysis package to highlight variances between forecast and actual performance requiring remedial action
- 5 Identify alternative electronic methods for transacting business with customers and/or suppliers

Unit content

Outcome 1

Employ a range of ICT techniques to minimise potentially damaging problems

The candidate knows how to:

- Be aware of a range of everyday, potentially damaging, financial management problems eg fraud, system failure, breach of security, data corruption/loss, inaccuracies
- Identify ICT solutions that could be employed to solve those problems eg via password protocols, back-up procedures, audit trails, spreadsheet audits, spell and grammar checks, standard style-sheets
- State why, and when, the described ICT solutions should be employed
- Prepare a procedures manual detailing the risks and suggested solutions

Unit 11 Provide ICT solutions for financial operations

Outcome 2

Evaluate alternative ICT solutions to meet set criteria for the accuracy, availability, timeliness and presentation of financial information

The candidate knows how to:

- Evaluate ICT solutions to meet set criteria in financial management eg accounts package modules, management information systems, enterprise resource planning systems, intranet
- Document the justification of a selected ICT solution

Outcome 3

Use ICT-mediated techniques to preserve mandatory records and to submit statutory and regulatory returns

The candidate knows how to:

- Select an appropriate ICT document management system
- Evaluate an ICT document management system
- Use electronic submission of statutory/fiscal returns
- Confirm that electronically submitted returns have reached their destination
- Check that statutory returns are error free or in an acceptable format
- Implement procedures to preserve mandatory records for future use

Outcome 4

Select and operate a statistical analysis package to highlight variances between forecast and actual performance requiring remedial action

The candidate knows how to:

- Select the most appropriate ICT statistical analysis package
- Recognise variances between forecast and actual performance
- Ensure that where appropriate, procedures are in place to update the selected package
- Act upon relevant published information which may have a financial significance

Outcome 5

Identify alternative electronic methods for transacting business with customers and/or suppliers

The candidate knows how to:

- Identify a range of ICT applications that could be used for electronic business transactions eg via web site, Internet, call centres
- Make the best use of ICT when conducting transactions with a customer/supplier
- Recognise the security issues involved in the Internet and web sites
- Ensure compatibility of data between the business and the customer/supplier

Unit 11 Provide ICT solutions for financial operations

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could outline the ICT systems for an organisation that has problems with availability and accuracy of its financial data and requires a risk assessment for the financial ICT systems and evaluation of alternative ICT systems. The organisation also requires investigation of a document management system, a statistical analysis package and electronic business transactions as it is considering investing in these systems to improve financial operations.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems used in financial operations and developed appropriate skills, which they can use in problem solving ICT solutions for financial operations.

The candidate will be expected to produce the following

- procedures manual detailing risks and suggested solutions to minimise potentially damaging problems.
- justification of selection of an ICT solution to meet set criteria in financial management
- evaluation and selection of a document management system
- report comparing and contrasting two statistical software packages for financial purposes
- evaluation of the benefits and drawbacks of electronic business transactions including security issues. Critical comparison of two different e-commerce approaches

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

C4.1 Develop a strategy for using communication skills over an extended period of time.

C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:

- a one group discussion about a complex subject;
- b one extended written communication about a complex subject.

Unit 11 Provide ICT solutions for financial operations

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT.

Managing IT Systems Level 4

411 Develop and Manage Your Own Effectiveness and Professionalism

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Unit 11 Provide ICT solutions for financial operations

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Rockart, J.F. & De Long, D.W. (1988) *Executive Support Systems: the emergence of top management computer use* (Homewood Ill.: Dow Jones-Irwin). ISBN 0-87094-955-1

McKean, J. (1999) *Information Masters: secrets of the customer race*. (John Wiley & Sons; Chichester). ISBN 0-471-98801-4

Donovan, J.J. (1994) *Business Re-engineering with Information Technology: sustaining your business advantage* (PTR Prentice Hall; New Jersey). ISBN 0-13-125907-5

Lewis, D. (1999) *Information Overload: practical strategies for surviving in today's workplace*. (Penguin Books; London). ISBN 1-3579-10864-2

Note 1: candidates may find it useful to consult journals such as IT Consultant; Banking Technology; Management Today and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 12

Provide ICT solutions for marketing operations

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve problem-solving capabilities within the marketing area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in the marketing function to:

- Select an appropriate ICT solution to a marketing problem encountered
- Implement an appropriate ICT solution to solve a problem
- Identify ways in which best practices in problem-solving using ICT can be shared
- Exploit ICT to improve perceptibly and the productivity of marketing activities
- Implement procedures that make access to customer or product information readily accessible.

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Identify a range of ICT-enabled techniques to maximise the availability of incoming streams of customer transactional data and convert it back into actionable information
- 2 Select alternative ICT solutions to reduce the cost of providing sales literature, promotions and quotations to customers
- 3 Take advantage of ICT techniques for managing customer information in compliance with the Data Protection Act
- 4 Identify ICT techniques suitable for monitoring and speedily resolving customer complaints

Unit content

Outcome 1

Identify a range of ICT-enabled techniques to maximise the availability of incoming streams of customer transactional data and convert it back into actionable information

The candidate knows how to:

- Identify a range of ICT techniques that provide information eg relational databases, on-line analytical processing (OLAP), graphical tools
- Select an ICT system capable of processing large amounts of transactional data
- Describe the process of extraction and manipulation of transaction data to highlight customer buying behaviour in relation to sales
- Describe the process of extraction and manipulation of transaction data to highlight customer buying behaviour in relation to stock control
- Describe the process of extraction and manipulation of transaction data to highlight customer trends in general
- Identify ICT techniques available which can use analytical information obtained from transactional data to best effect within the company or organisation

Unit 12 Provide ICT solutions for marketing operations

Outcome 2

Select alternative ICT solutions to reduce the cost of providing sales literature, promotions and quotations to customers

The candidate knows how to:

- Identify ICT solutions that can be employed to reduce advertising/sales literature costs eg via customer relationship management tools (CRM), corporate website (for online catalogue), intranet (for standard company documents)
- Select appropriate ICT technologies/solutions that can be used to provide textual documentation in relation to sales
- Use a storyboard or graphical ICT tools to design a corporate website that provides public access to an accurate catalogue of the organisation's products and their current availability
- Evaluate the web sites of similar organisations in order to identify best and worst practice in the design and customer interface.

Outcome 3

Take advantage of ICT techniques for managing customer information in compliance with the Data Protection Act

The candidate knows how to:

- Implement ICT solutions that contain personal information in compliance with the Data Protection Act
- Select appropriate ICT technology to provide all relevant staff with access to a single database of customer information
- Describe data security procedures used to maintain data confidentiality and integrity eg password, backup

Outcome 4

Identify ICT techniques suitable for monitoring and speedily resolving customer complaints

The candidate knows how to:

- Specify ICT-enabled technologies for logging, monitoring and resolving of customer complaints eg computer-telephony integration (CTI), manufacturing resource planning systems (MRP11)
- Specify and implement an ICT-solution for logging and monitoring customer complaints eg database
- Use the identified process to minimise customer dissatisfaction
- Identify the benefits to be gained in generating regular audits and reports for management
- Identify the need to implement a procedures policy to deal with customer complaints.

Unit 12 Provide ICT solutions for marketing operations

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could outline an organisation with an online transaction processing that has problems in the marketing area eg analysis of transaction data, resolution and monitoring of customer complaints, cost of advertising and updating marketing materials but is prepared to invest in new ICT systems. The organisation require an ICT system to enable transaction data to be extracted for analytical purposes and are interested in setting up a web site to advertise the products available in their database. Initially an investigation is required of competitors' web sites and the design for a proposed web site. A database design and implementation is required to track customer complaints, highlight any complaints that are unresolved and include data security and data access procedures.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems used in marketing and developed appropriate skills, which they can use in problem solving ICT solutions for marketing.

The candidate will be expected to produce the following

- Report outlining the type of analytical ICT technologies/solutions available to extract and manipulate available customer transaction data
- Evidence of evaluation of the web sites for similar organisations
- Design for a website that demonstrates how products can be advertised. Product information should be sourced from a database.
- Design and implementation of a database to track customer complaints and highlight any complaints that are unresolved. The documentation should include a data dictionary, form and report layouts and query criteria as well as the data security and data access procedures to be implemented.

The assessment of this unit can be combined with the assessment for Unit 1 Project Management and/or Unit 2 Develop ICT for information management to form an integrated assignment.

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Unit 12 Provide ICT solutions for marketing operations

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

412 Develop and Manage Your Own Effectiveness and Professionalism

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Unit 12 Provide ICT solutions for marketing operations

Suggested reading list

Rockart, J.F. & De Long, D.W. (1988) *Executive Support Systems: the emergence of top management computer use* (Homewood Ill.: Dow Jones-Irwin). ISBN 0-87094-955-1

McKean, J. (1999) *Information Masters: secrets of the customer race*. (John Wiley & Sons; Chichester). ISBN 0-471-98801-4

Donovan, J.J. (1994) *Business Re-engineering with Information Technology: sustaining your business advantage* (PTR Prentice Hall; New Jersey). ISBN 0-13-125907-5

Lewis, D. (1999) *Information Overload: practical strategies for surviving in today's workplace*. (Penguin Books; London). ISBN 1-3579-10864-2

Note 1: candidates may find it useful to consult journals such as IT Consultant; Banking Technology; Management Today and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 13

Provide ICT solutions for support service operations

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve problem-solving capabilities within the support services area of the organisation.

In this context 'support services' means all service provision required to support strategic direction and the core operational roles of finance, marketing and product/service delivery. Such provision would include eg human resources management, training, technical infrastructure, PR, legal services, purchasing, estimating, transport and facilities management.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in providing support services to the business to:

- select and employ an appropriate ICT solution to support service problem encountered
- identify ways in which best practices in problem-solving using ICT can be shared
- exploit ICT to improve perceptibly and the efficiency of support services

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Choose and employ appropriate ICT to ensure the organisation's compliance with fiscal, regulatory and statutory obligations
- 2 Use ICT to support the management of human resources
- 3 Identify the benefits of tracking assets within the organisation in order to give effective support
- 4 Take advantage of ICT solutions to help resolve sudden or longer-term staffing level deficiencies
- 5 Identify the benefits of adopting 'house style' policies in relation to both paper-based documents and information to be communicated electronically

Unit 13 Provide ICT solutions for support service operations

Unit content

Outcome 1

Choose and employ appropriate ICT to ensure the organisation's compliance with fiscal, regulatory and statutory obligations

The candidate knows how to:

- Identify procedures for tracking changes in business practice, fiscal policies or legislation that could in any way affect the business
- Disseminate information that informs both management and staff of any relevant changes
- Use ICT solutions as a means for deploying information about obligations binding on the organisation eg Intranet, news bulletin, e-mail
- Ensure that appropriate returns are filed on an accurate and timely basis
- Invoke procedures to ensure that information displayed is current and timely

Outcome 2

Use ICT to support the management of human resources

The candidate knows how to:

- Identify human resource issues that can affect an organisation eg serious accidents, industrial disputes, disciplinary procedures, quality control issues, public relations
- Specify an ICT solution that will give ready access to company rules and procedures
- Evaluate ICT solutions to ensure that they are fit for purpose
- Ensure that any information posted has contact details for both internal and external sources in the event of query or crisis
- Ensure that any ICT solution adopted includes notes for advice and guidance
- Ensure that issues relating to quality control are implemented and regularly audited
- Ensure that procedures are in place to respond quickly to any issues that relate to any public relations issues

Outcome 3

Identify the benefits of tracking assets within the organisation in order to give effective support

The candidate knows how to:

- Implement an ICT-enabled system for maintaining an up-to-date register of the organisation's facilities, plant and equipment
- Ensure that the selected system holds technical and business information about assets
- Identify the need to ensure that any available spares/stores are monitored in order to maintain on-going productivity within the organisation

Unit 13 Provide ICT solutions for support service operations

Outcome 4

Take advantage of ICT solutions to help resolve sudden or longer-term staffing level deficiencies

The candidate knows how to:

- Create labour rosters using ICT, to enable the business to have an on-going service
- Utilise ICT solutions to group staff into workplace settings/groups
- Evaluate the solution and identify ways in which key staff absent from work can be temporarily replaced
- Create schedules for human resources required to deliver a variety of business or project plans eg project planning software package

Outcome 5

Identify the benefits of adopting 'house style' policies in relation to both paper-based documents and information to be communicated electronically

The candidate knows how to:

- Evaluate the current appearance of electronic or manual documentation ie design, presentation, font, organisation contact information
- Identify best and worst practice from other organisations in relation to documentation in the support service area
- Recognise the advantages in having a corporate style/identity
- Design and cost a corporate style for stationary, electronic reports and bespoke software
- Make recommendations to justify the implementation and cost of a corporate style within the organisation

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could specify a company that has no consistent corporate identity on documents; no reliable, up-to-date information published for company rules and procedures or changes to fiscal, regulatory and statutory obligations and has, in the past, been late in filing statutory returns. There is no tracking of company assets eg plant and equipment, fleet of vehicles and only a paper-based record for staff rosters and absenteeism.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about support service operations and developed appropriate skills, which they can use in problem solving ICT solutions for support services.

Unit 13 Provide ICT solutions for support service operations

The candidate will be expected to produce the following

- web pages that relay changes in fiscal, regulatory and statutory obligations on the organisation and publish them on an intranet.
- report detailing why it is necessary for a company to be timely when filing statutory returns and specification of an ICT solution that could be used to produce reminders
- design of an ICT solution that gives ready access to company rules and procedures, includes notes for guidance and forms part of a quality control process
- design and implementation of an ICT based solution that maintains an up-to-date register of an organisation's assets including any technical information that is relevant and any staff qualified to use the asset
- evidence of use of an ICT application to produce a staff roster and to track any staff absenteeism
- a range of documents and ICT interfaces that conform to an identified corporate style

The assessment of this unit can be combined with the assessment for Unit 1 Project Management and/or Unit 2 Develop ICT for information management to form an integrated assignment.

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
- a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Unit 13 Provide ICT solutions for support service operations

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT:

Managing IT Systems Level 4

413 Develop and Manage Your Own Effectiveness and Professionalism

405 Control the Investigation of Customer Requirements

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Unit 13 Provide ICT solutions for support service operations

Suggested reading list

Rockart, J.F. & De Long, D.W. (1988) *Executive Support Systems: the emergence of top management computer use* (Homewood Ill.: Dow Jones-Irwin). ISBN 0-87094-955-1

McKean, J. (1999) *Information Masters: secrets of the customer race*. (John Wiley & Sons; Chichester). ISBN 0-471-98801-4

Donovan, J.J. (1994) *Business Re-engineering with Information Technology: sustaining your business advantage* (PTR Prentice Hall; New Jersey). ISBN 0-13-125907-5

Lewis, D. (1999) *Information Overload: practical strategies for surviving in today's workplace*. (Penguin Books; London). ISBN 1-3579-10864-2

Note 1: candidates may find it useful to consult journals such as IT Consultant; Banking Technology; Management Today and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

Unit 14

Evaluate ICT applications for marketing

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve your personal efficiency and effectiveness within the marketing area of the organisation.

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in marketing to:

- Evaluate the effectiveness of any ICT solutions employed in marketing to raise efficiency and productivity
- Use a ICT applications to store marketing information and publicise information
- Use suitable applications to analyse data
- Review ICT solutions intended to improve the quality, clarity, timeliness and effectiveness of marketing activities.

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Use Desk Top Publishing to create convincing sales literature that can readily be reformatted for publication via a range of media channels
- 2 Design, implement and document a database that stores product information, sales terms and conditions prior to linking to a web site
- 3 Link marketing information contained in a database to a web site and identify security issues
- 4 Select and operate ICT tools for processing, analysing and extracting value from market survey data
- 5 Deploy ICT to equip remotely-sited staff to connect with and obtain centralised information resources whenever required

Unit content

Outcome 1

Use Desk Top Publishing to create convincing sales literature that can readily be reformatted for publication via a range of media channels

The candidate knows how to:

- Select and evaluate Desk Top Publishing packages eg Adobe PageMaker, Quark Express
- Produce high quality marketing communications
- Explain the purpose of HTML tags and their importance to the viewing device being used ie webPC, iTV or mobile Internet
- Use HTML conversion techniques that enable the communications to be disseminated on a web site

Unit 14 Evaluate ICT applications for marketing

Outcome 2

Design, implement and document a database that stores product information, sales terms and conditions prior to linking to a web site

The candidate knows how to:

- Identify the difference between, and uses of, a relational database eg MS Access and a non-relational eg Lotus Notes for organising and maintaining up-to-date product, sales and business information
- Design a relational database including documenting data dictionaries, entity relationships, database structures, form and report layouts and indexes
- Implement a database from design documents

Outcome 3

Link marketing information contained in a database to a web site and identify security issues

The candidate knows how to:

- Identify suitable design formats/themes for a web site for marketing information
- Create a marketing web site to which database information can be linked and displayed
- Link a database to a web site/page
- Selectively display information from a database on a web page
- Evaluate the functionality of a web site by using a test plan and test log
- Identify security issues that may apply when organisational information is accessed remotely
- Evaluate the look and operation of a web site

Outcome 4

Select and operate ICT tools for processing, analysing and extracting value from market survey data

The candidate knows how to:

- Select and use proprietary or in-house solutions to format questionnaires so that the returns are machine readable
- Select and use proprietary or in-house solutions for statistical analysis of multiple data sets to reveal patterns and trends
- Critically review the ICT tools used for both questionnaires and statistical analysis
- Use ICT tools to best effect when extracting actionable information from market survey data

Unit 14 Evaluate ICT applications for marketing

Outcome 5

Deploy ICT to equip remotely-sited staff to connect with and obtain centralised information resources whenever required

The candidate knows how to:

- Evaluate and deploy two types of solution – fixed and mobile – for maintaining communications with staff who are working away from the main office
- Select the best method of communication ie teleconferencing, videoconferencing, desktop webPC
- Select other ICT equipment relevant to the particular needs of the organisation ie mobile phones, pagers, palmtops, clamshells, specialised portable devices

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could outline an organisation that requires a review of its ICT systems for marketing. The organisation has decided to use a DTP application to enable advertising material to be created in-house and distributed in various formats and is interested in setting up a web site linked to a database to advertise the products, sales terms and conditions. An analysis is required for ICT tools available (in-house or proprietary) for producing questionnaires and statistical analysis information and an evaluation of the viability and cost effectiveness in supplying staff with remote access to the organisation and any security issues that need addressing.

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems used in marketing and developed appropriate skills, which they can use in evaluating ICT solutions for marketing.

The candidate will be expected to produce the following

- marketing information created in a Desk Top Publishing application
- evidence to demonstrate that the DTP material can be readily reformatted for display in a range of media channels
- documentation of the design, implementation and evaluation of a database that stores product information, sales terms and conditions in preparation to linking to a website
- evidence of the database linked to a web site and testing of the operation of the web site
- report analysing the ICT tools available (in-house or proprietary) for producing questionnaires and statistical analysis information
- report evaluating the viability and cost effectiveness in supplying staff with remote access to the organisation and any security issues that need addressing

Unit 14 Evaluate ICT applications for marketing

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

414 Develop and Manage Your Own Effectiveness and Professionalism

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Unit 14 Evaluate ICT applications for marketing

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Garai, H. (1997) *Managing Information: Working Smarter Not Harder* (Gower Publishing; Aldershot); 211 pages. ISBN 0 566 07740 X

Stefik, M. (1999) *The Internet Edge: social, technical and legal challenges for a networked world*. (The MIT Press; Cambridge, Mass.) ISBN 0-262-19418-X

Kennedy, A.J. (1999) *The Rough Guide to the Internet* (Penguin Books; London). ISBN 1-85828-343-4

Greenstein, M. & Feinman, T.M. (2000) *Electronic Commerce: security, risk management and control*. (McGraw-Hill Higher Education) ISBN 0-07-229289-X

Nierderst, J. (2000) *Web Design in a Nutshell: a desktop quick reference*. (O'Reilly Publications) ISBN 1-56592-515-7

Note 1: candidates may find it useful to consult periodicals such as PC User; Mac User; and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

Note 3: many websites contribute preparatory ideas on digital business communications; eg: www.ecomreview.co.uk or www.cluetrain.com

This page is intentionally blank

Unit 15

Evaluate ICT applications for support services

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve your personal efficiency and effectiveness within the support services area of the organisation.

In this context 'support services' means all service provision required to support strategic direction and the core operational roles of finance, marketing and product/service delivery. Such provision would include eg human resources management, training, technical infrastructure, PR, legal services, purchasing, estimating, transport and facilities management

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in providing support services to the organisation to:

- select and employ ICT solutions for support services to raise personal efficiency and productivity
- recognise when a non-ICT solution could be more effective
- choose and use ICT solutions to improve the quality, clarity and timeliness of responses related to the needs of operational areas of the organisation

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Reflect on working practices in relation to ICT applications in order to give effective support and evaluate ways in which support services can best respond to the needs of the organisation
- 2 Identify ways that best working practice can be shared
- 3 Use and configure ICT applications and tools to a level of proficiency that permits the troubleshooting of colleagues' problems
- 4 Create management policies or procedures to control unauthorised use of ICT technologies and communicate electronically
- 5 Evaluate ways in which ICT can be used to re-deploy physical resources to meet peaks of demand

Unit 15 Evaluate ICT applications for support services

Unit content

Outcome 1

Reflect on working practices in relation to ICT applications in order to give effective support and evaluate ways in which support services can best respond to the needs of the organisation

The candidate knows how to:

- Evaluate the role of the support service within the organisation
- Evaluate the methods currently used to communicate with the support services
- Evaluate the solutions currently employed in relation to ICT within support services
- Demonstrate compliance with the organisation's existing procedures within support services
- Evaluate a range of audit trails in relation to support and communication
- Identify best practice in responding to the needs of the organisation
- Design and implement ICT technologies to improve and track two-way communication involving support services

Outcome 2

Identify ways that best working practice can be shared

The candidate knows how to:

- Design and implement documentation for a worksite study for an organisational area and its use of ICT technologies
- Critically evaluate the ICT current working practices of a sector within an organisation with a view to improving efficiency
- Identify both good and bad working practices
- Identify and adapt good practices from other sectors of the organisation
- Create reports that make suggestions for improvements in the organisational area with valid arguments in justification
- Evaluate security procedures eg managing data stores, data security, data back-up

Outcome 3

Use and configure ICT applications and tools to a level of proficiency that permits the troubleshooting of colleagues' problems

The candidate knows how to:

- Understand and employ good practice in a range of ICT technologies ie email, groupware, intranets, online discussion areas, voicemail, tele-conferencing videoconferencing
- Create checklists for troubleshooting common problems experienced by colleagues' in the same operational area
- Select and use appropriate techniques for navigating and searching both Intranets and the Internet to locate and acquire relevant information
- Demonstrate a working knowledge of alternative search methods eg Boolean logic, Bayesian logic, thesauri, pattern recognition
- Use themes and contextual relationships rather than keywords to good effect

Unit 15 Evaluate ICT applications for support services

Outcome 4

Create management policies or procedures to control unauthorised use of ICT technologies and communicate electronically

The candidate knows how to:

- Evaluate current use of both e-mail and Internet access within the support services sector
- Design and implement guidelines to control unauthorised use of ICT technologies ie misuse of e-mail, using the Internet for personal use, private work
- Ensure that policies and procedures are published via online media so that they are clear and unambiguous
- Appreciate different web design principles and understand that these differ for WAP-enabled devices (Wireless Application Protocol) in the electronic communication with employees

Outcome 5

Evaluate ways in which ICT can be used to re-deploy physical resources to meet peaks of demand

The candidate knows how to:

- Implement an ICT-enabled system that identifies staff /skills capable for redeployment in order to respond to peaks in demand
- Identify the need to ensure that any current or expected increase in personnel resources are identified so as not to affect the productivity of the organisation
- Evaluate methods of identifying skills that could be redeployed in order to maintain staffing levels at peak times
- Identify ICT technologies that could be used to locate unused accommodation/storage facilities within the organisation

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

The candidate will be expected to produce the following

- design and implementation of an ICT solution that creates an audit trail for communications with the support services of an organisation
- template that will support a work-based survey of ICT practices within an organisational area. Conduct of the survey/review and documentation of the results highlighting any recommendations.
- procedures manual for staff using e-mail, the Internet and/or the corporate intranet. The manual should contain reference to good working practices ie any corporate policy on personal use, procedures to be adopted, search techniques, common problem areas and the solutions
- design and implementation of an ICT solution to monitor one of the following: staff skills, staff roles, accommodation or storage facilities capable of re-deployment to cope with demands at short notice or peak times.

Unit 15 Evaluate ICT applications for support services

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems used in support services and developed appropriate skills, which they can use in evaluating ICT solutions for support services.

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
 - a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Unit 15 Evaluate ICT applications for support services

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

415 Develop and Manage Your Own Effectiveness and Professionalism

405 Control the Investigation of Customer Requirements

409 Evaluate Potential Information Technology Products and Services

414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Suggested reading list

Garai, H. (1997) *Managing Information: Working Smarter Not Harder* (Gower Publishing; Aldershot); 211 pages. ISBN 0 566 07740 X

Boone, M.E. (1991) *Leadership and the Computer: top executives reveal how they personally use computers to communicate, coach, convince and compete.* (Rocklin, CA.; Prima Publishing). ISBN 1-55958-080-1

Kennedy, A.J. (1999) *The Rough Guide to the Internet* (Penguin Books; London). ISBN 1-85828-343-4

Nierderst, J. (2000) *Web Design in a Nutshell: a desktop quick reference.* (O'Reilly Publications) ISBN 1-56592-515-7

Note 1: candidates may find it useful to consult journals such as PC User; Mac User; and magazines such as Computing; Computer Weekly

Note 2: candidates could obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

This page is intentionally blank

Unit 16

Evaluate ICT applications for product/service delivery

Unit summary

This unit is about knowing when and how to apply information and communications technologies, services and devices (ICT) to improve your personal efficiency and effectiveness within the product/service delivery area of the organisation.

In this context 'product/service delivery' means all activities in the organisation geared to order fulfilment. Such activities will include order entry and acknowledgement, resource scheduling, design, manufacturing/product creation and despatch

Successful achievement of this unit is dependent upon candidates meeting the assessment requirements and outcomes and producing work of a satisfactory and reliable standard.

Aims

The module aims to enable a candidate engaged in product/service delivery to:

- select and employ ICT solutions for product/service delivery to raise personal efficiency and productivity
- choose and use ICT solutions to improve the effectiveness of product/service delivery activities in the organisation
- recognise when a non-ICT solution could be more effective
- evaluate and justify ICT solutions employed

Outcomes

On successful completion of the unit the candidate will be able to:

- 1 Develop an ICT application that tracks the fulfilment of a customer order from receipt to final payment
- 2 Understand and specify ICT linkages allowing a customer to view or be given appropriate real time information about stock levels, delivery progress, account status etc that is relevant to their transactional relationship
- 3 Operate and maintain an enterprise resource planning and inventory control application
- 4 Set up and employ a version control system for designs, specifications and documents that enables a project team to track and act upon changes
- 5 Develop and use a system enabling customer-facing staff to access and subscribe to a knowledge base that informs their work

Unit 16 Evaluate ICT applications for product/service delivery

Unit content

Outcome 1

Develop an ICT application that tracks the fulfilment of a customer order from receipt to final payment

The candidate knows how to:

- Identify the components required for an efficient order delivery system
- Use ICT technologies that enable cross-functional teams to ensure order fulfilment
- Evaluate the effectiveness of an order delivery system within an organisation
- Develop and employ a tracking system that can be shared by two or more people eg a proprietary project management application linked to an Organiser tool for diarising 'to do' lists

Outcome 2

Understand and specify ICT linkages allowing a customer to view or be given appropriate real time information about stock levels, delivery progress, account status etc that is relevant to their transactional relationship

The candidate knows how to:

- Compare and contrast direct access and employee-assisted systems for giving real time transactional information to a customer
- Describe Internet protocols, access control, security methods, online reservation mechanisms
- Identify and compare different methods that can be employed for ICT and non-ICT solutions that track transactions

Outcome 3

Operate and maintain an enterprise resource planning and inventory control application

The candidate knows how to:

- Identify the components required for an efficient stock control system
- Design an ICT solution that tracks stock movement and automates stock replenishment
- Implement an ICT-mediated inventory control system
- Evaluate an inventory control system that is entirely internally managed
- Evaluate an inventory control system that has remote access provision to suppliers tied to Service Level Agreements
- Demonstrate how the Internet can be used for inviting bids for the supply of required goods or services

Unit 16 Evaluate ICT applications for product/service delivery

Outcome 4

Set up and employ a version control system for designs, specifications and documents that enables a project team to track and act upon changes

The candidate knows how to:

- Explain in relation to ICT, the principles related to version control
- Design and apply a 'fail safe' system that ensures the latest authorised version of designs, specifications and documents are used
- Specify roles and responsibilities for managing an ICT-enabled system
- Identify how a small company can develop and distribute an ICT solution by deploying a spreadsheet or database eg Access or Lotus Notes
- Identify how a large organisation reports on version changes eg document management tools, digital watermarks

Outcome 5

Develop and use a system enabling customer-facing staff to access and subscribe to a knowledge base that informs their work

The candidate knows how to:

- Identify the need for customer-facing staff to have ready access to information
- Use ICT to develop an intranet/network-based application that enables customer-facing employees to access and subscribe to a shared repository of good practice
- Identify the need for the business area to have policies and procedures in place that minimise any mismanagement of customer transactions
- Implement the intranet-based application, test it and critically review it
- Identify and develop ways of managing the content of intranet-based solutions
- Promote and share practical experiences within the organisation

Assessment

Assessment can be done by using a Case Study that a candidate can explore and expand to fulfil the objectives of the unit.

A suitable Case Study could outline a small company that has received customer complaints about order progress, lack of information about out of stock items and supply of incorrect versions of products. The company requires an ICT system designed and implemented for an order tracking system and a database to automate the reordering of stock and production of printouts of stock levels. A design is also required for an ICT system to allow customer-facing staff to have access to customer information and to be able to interact with the solution ie add comments, flag queries, change order specifications. Evaluation of two new systems under consideration is also required, the first ICT system is to allow customers to view or be given appropriate real time information about stock levels, delivery progress and their account status and the second ICT system is to manage version control on design and specification documents.

Unit 16 Evaluate ICT applications for product/service delivery

The purpose of the assessment activity is to enable candidates to demonstrate that they have developed a full understanding about ICT systems for product/service delivery and developed appropriate skills, which they have been able to employ in evaluating ICT solutions for product/service delivery.

The candidate will be expected to produce the following

- design, implementation and documentation of an order tracking system
- evaluation of how ICT linkages could be employed to allow customers to view or be given appropriate real time information about stock levels, delivery progress, their account status
- design and implementation of a database to track stock levels. The solution should cause action to be taken when stocks reach a low level eg producing replenishment orders, outputting stock control/management updates
- evaluation of an appropriate version control ICT system
- design and documentation of an ICT solution for customer-facing staff to have access to customer information in order to respond to queries. The solution should include functionality for the customer-facing staff to interact with the solution ie add comments, flag queries, change order specifications

Guidance

Key Skills signposting

As candidates work towards the outcomes of this unit, there are opportunities for Key Skills development in the following Level 4 Key Skills units:

Communication

- C4.1 Develop a strategy for using communication skills over an extended period of time.
- C4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving:
- a one group discussion about a complex subject;
 - b one extended written communication about a complex subject.

Improving own learning and performance

- LP4.1 Develop a strategy for using skills to improve learning and performance over an extended period of time.
- LP4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcome required in at least two different learning activities.
- LP4.3 Evaluate your overall strategy and present the outcome of your work, including a synthesis of what you have learned from two different complex learning activities.

Unit 16 Evaluate ICT applications for product/service delivery

Problem solving

- PS4.1 Develop a strategy for using skills in problem-solving over an extended period of time.
- PS4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required when tackling one complex problem with at least three options.

Information Technology

- IT4.1 Develop a strategy for using IT skills over an extended period of time.
- IT4.2 Monitor progress and adapt your strategy, as necessary, to achieve the quality of in work involving the use of IT for two different, complex purposes:
- IT4.3 Evaluate your overall strategy and present the outcomes from your work, using at least one presentation, showing integration of text, images and number.

Links with other units/qualifications

This unit has links with the National Occupational Standards for IT

Managing IT Systems Level 4

- 416 Develop and Manage Your Own Effectiveness and Professionalism
- 405 Control the Investigation of Customer Requirements
- 409 Evaluate Potential Information Technology Products and Services
- 414 Contribute to the Development of Information System Strategy

Resources

This unit can be delivered through a combination of formal teaching, directed learning and discussion. An action learning approach which offers individuals the opportunity to undertake their own learning activity and then share this with others would be a useful model to follow, although not the only one.

Delivery advice

This unit should involve approximately 100 hours of study – 40 of which should be through guided learning.

Assessments should be practical and realistic and relate to current sector practice. If candidates are currently working in the sector, there will be opportunities for them to draw evidence from activities carried out in the workplace as agreed by their employer. Candidates should be encouraged to investigate and critically review current trends and innovative practice and use a range of resources to gather data.

Unit 16 Evaluate ICT applications for product/service delivery

Suggested reading list

Savage, C.M. (1990) *5th Generation Management: integrating enterprises through human networking* (Digital Press; US). ISBN 1 55558 037 8

Angehrn, A. (1997) *Designing Mature Internet Business strategies: the ICDT Model*, European Management Journal Vol 15 No 4 August; pp 361-369

Greenstein, M. & Feinman, T.M. (2000) *Electronic Commerce: security, risk management and control*. (McGraw-Hill Higher Education) ISBN 0-07-229289-X

Kennedy, A.J. (1999) *The Rough Guide to the Internet* (Penguin Books; London). ISBN 1-85828-343-4

Note 1: candidates may find it useful to consult journals such as PC User; Mac User; Supply Chain Management Review; magazines including Computing and Computer Weekly and resources such as www.logistics.com and www.ics-nto.com (Inst of Customer Service)

Note 2: candidates could also obtain relevant information from web search engines (eg: www.altavista.co.uk or www.google.com) or web directories (eg: www.yahoo.com)

Appendix A

Guidance on assignment design

1 Designing assignments

- 1.1 The purpose of an assignment is to provide candidates with the opportunity to produce work which demonstrates that they have gained the knowledge and skills detailed in the learning outcomes. Assignments may focus on either a single unit or more than one unit where there are common themes across some of the units.
- 1.2 It is important for centres to use an integrated approach (ie content which links effectively across two or more units) in relation to at least one assignment. There are a number of units which have links and could potentially form the basis for the development of an integrated assignment. Examples include:

Unit 1: Project Management and Unit 2: Develop ICT for Information Management

Unit 1: Project Management and Unit 12: Provide ICT Solutions for Marketing Operations

Unit 1: Project Management, Unit 2: Develop ICT for Information Management, and either Unit 12: Provide ICT Solutions for Marketing Operations or Unit 13: Provide ICT Solutions for Support Services Operations

Unit 3: Support Organisational Management and Unit 6: Optimise Business Operations by means of ICT

Unit 6: Optimise Business Operations by means of ICT and Unit 13: Provide ICT Solutions for Support Services Operations

Where it is not possible or practical to cover all of the assessment requirements for each unit linked to the integrated assignment, it will be necessary for candidates to complete additional 'mini' assignments or 'top-up' activities to ensure that all the requirements have been met.

The approach to marking/assessing integrated assignments should enable an individual grade to be allocated to each unit covered, for the purposes of grading calculations.

- 1.3 Regardless of whether the assignment is based on an individual unit or an integrated selection of units, complete familiarity with the specification requirements will allow both tutors and candidates to identify relevant opportunities, content, and topics which can facilitate the development of work-related and challenging assignments. Specifically, the assessment and guidance section of the specifications should be used to generate ideas about possible approaches to assignment design.

- 1.4 In some units the assessment section is quite detailed and provides a strong basis for an assignment. In these cases, the main focus is likely to be on providing further background or a scenario to place the assignment into a meaningful context with a clear vocationally-related purpose. In addition, it is probable that centres will wish to present the assignment in a user-friendly manner for candidates, eg addressing the candidate in the first person, using a different font-size. Other units in the specifications have a less detailed assessment section which provides more scope for centres and candidates to tailor assignments to their specific work roles and experience, bearing in mind the need for the unit outcomes to be met. Although a particular form of assessment may be identified in the assessment section of the unit eg a report, it is possible to select an alternative approach such as a case-study or presentation, as long as candidates produce evidence of comparable quantity and quality and meet the same outcomes.
- 1.5 To aid manageability and clarity, the assignment may be broken down into activities or tasks which relate to each other so that the overall assignment is coherent. In addition, assignments should be vocationally-relevant, realistic and motivating. It is important that each assignment brief provides the following information:
- the purpose of the brief or rationale for the assignment
 - intended context
 - knowledge and skills to be demonstrated
 - the criteria for success
- 1.6 Assignment design should take account of those candidates who have the potential to achieve a higher grade to meet the Merit and Distinction criteria. For instance, the grading descriptors reflect the need for candidates to carry out research with increasing degrees of independence, apply work-related skills, knowledge and understanding effectively and analyse and reflect on ideas and actions. There should therefore be opportunities for candidates to respond to their assignments in this way.

2 Opportunities for repeating assignments

- 2.1 At this level candidates should be encouraged to take a proactive role in their own self assessment and be encouraged to match their work to the unit requirements. This should be supplemented with tutor feedback on performance. As part of this process, if candidates have not been successful in the assignment, there should be discussion and illustration of why they were not successful. If a candidate is then able to attempt the assignment again and meet the criteria independently, a pass can be achieved.
- 2.2 Assignments can be completed in any order; however, centres will be expected to sequence assignments logically according to the requirements of the candidates, the course, and resources within the centre.

3 Safe working

- 3.1 The importance of safe working practices must always be stressed. Candidates have responsibilities for the safety of others as well as themselves. A candidate cannot be allowed to continue working on an assignment if they have contravened health and safety requirements. To complete the unit, the candidate will be allowed to recommence on a different occasion and tutors will closely monitor the achievement of the safety aspects.

4 Permission & confidentiality

- 4.1 Candidates may need to maintain confidentiality in the use of business data by 'anonymizing' sensitive information.

5 Marking and grading of assignments

- 5.1 To confirm that an outcome is achieved, it is useful to identify the key points or *key assignment indicators* which one would expect to see in a candidate's response. Reference should be made to the unit content of each outcome as well as the requirements of the brief/task to select the key points.
- 5.2 The content of the assignments and feedback to candidates should take into consideration the importance of
- a formative approach
 - candidates being encouraged to reflect on building their achievements throughout the provision of the qualification, rather than only on the final outcome
 - indicating clearly and supportively to candidates on a regular basis any gaps there might be in the sufficiency and level of achieving the outcomes.
- 5.3 In order for candidates to achieve a Pass, it is necessary for them to complete all parts of the assignment and produce evidence which clearly shows that the outcomes have been met. The overall quality of the work must be of a satisfactory and reliable standard.
- 5.4 The assignments should be graded: Pass, Merit or Distinction. Candidates who show greater degrees of autonomy in the ways in which they carry out research, approach and evaluate their work, or demonstrate originality and imagination will gain higher grades than those who work completely from tutor prepared material. Please refer to the general Guidance section, paragraph 4.8 'The grading criteria' for full grading descriptors.

6 Internal and external moderation of assignments

- 6.1 Please refer to the general Guidance section, paragraph 9 'The quality assurance system' for information on how assignments are moderated.

This page is intentionally blank

Appendix B

QCA accreditation numbers

QCA Qualification accreditation number		Qualification title
100/4533/8		City & Guilds Higher Professional Diploma in Information Management Using ICT
QCA unit number	City & Guilds unit number	Unit title
F/102/7340	01	Project management
J/102/7341	02	Develop ICT for information management
L/102/7342	03	Support organisational management
R/102/7343	04	Extract value from ICT investment
Y/102/7344	05	Applying ICT to manage strategic information
D/102/7345	06	Applying ICT to optimise business operations by means of ICT
H/102/7346	07	Applying ICT to manage financial information
K/102/7347	08	Applying ICT to manage marketing information
M/102/7348	09	Applying ICT to manage support services information
T/102/7349	10	Applying ICT to manage product/service delivery information
K/102/7350	11	Provide ICT solutions for financial operations
M/102/7351	12	Provide ICT solutions for marketing operations
T/102/7352	13	Provide ICT solutions for support services operations
A/102/7353	14	Evaluate ICT applications in marketing
F/102/7354	15	Evaluate ICT applications in support services
J/102/7355	16	Evaluate ICT applications in product/service delivery

This page is intentionally blank

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2468
F +44 (0)20 7294 2400
www.city-and-guilds.co.uk

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