National Unit Specification: general information

UNIT   Computer Application Package (Database): Practitioners

CODE   D16D 11

SUMMARY

This Unit develops database processing skills and associated procedures and knowledge in a wide range of vocational areas. It is designed for those who will need to use a database effectively within the workplace.

OUTCOMES

1   Use the basic facilities of a database package.
2   Produce a database model to a given specification.
3   Interrogate a database to extract specified information.
4   Output information to specified destinations.

RECOMMENDED ENTRY

Access to this Unit is at the discretion of the centre. It is designed for those who will require to use a database package effectively within the workplace. It is also recommended as a prior training resource for those wishing to follow an SVQ in IT in a training environment. It offers a progression from the following National Certificate Units: 81093 *Introduction to Computer Software*, 81095 *Introduction to Computer Application Packages*, 8110065 *Computer Applications (Data)*, 8111005 *Information Technology 1*, 8111015 *Information Technology 2* or Standard Grade in Computing Studies at 3 or above.

National Unit Specification: general information (cont)

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CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5*).

SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Use the basic facilities of a database package.

Performance Criteria

(a) Existing database to be accessed is correctly located and loaded.
(b) Data is entered and edited correctly.
(c) Database facilities are used efficiently and effectively.

OUTCOME 2

Produce a database model to a given specification.

Performance Criteria

(a)   Database structure is created to meet a given specification.
(b)   Appropriate validation checks are correctly implemented
(c)   Data entry facilities are used correctly

OUTCOME 3

Interrogate a database to extract specified information.

Performance Criteria

(a) Queries are effectively designed and constructed to meet specified search criteria.
(b) Queries are carried out effectively to extract specified information.
(c) Reports are effectively designed and constructed to meet specified search criteria.
(d) Reports are generated to efficiently produce specified information in an appropriate format.

OUTCOME 4

Output information to specified destinations.

Performance Criteria

(a)   Destination is correctly selected.
(b)   Destination devices are checked for readiness to accept output.
(c)   Reports are checked for compatibility with specified destination.
(d)   Output parameters are identified and set up to meet output requirements.
(e)   Output is checked to be complete and accurate.

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

The assessment(s) will be carried out under open-book supervised conditions where candidates should have access to notes, reference books, internet and online help

Assessment should take place at appropriate points during delivery of the Unit.

Outcome 1 — Observation Checklist and hard copy evidence

An observation checklist must be submitted along with at least two hard copies to provide evidence of Performance Criteria across the following range:

Data: text; number; currency; date.

Database facilities: add; edit; search; sort; print.

Search: single condition; multiple conditions.

Print: all fields; selected fields.

Outcome 2 — hard copy evidence

In response to a given brief the candidate will produce hard copy examples as evidence of successful completion. The brief should require a structure that contains at least two related tables each consisting of at least five fields. A sufficient number of records should be included to allow realistic testing and to provide evidence of Performance Criteria across the following range:

Validation checks: presence; range; restricted value.

Field types: text; number; currency; calculated.

Outcome 3 — observation checklist and hard copy evidence

An observation checklist must be submitted along with hard copies of queries and reports to provide evidence of Performance Criteria across the following range:

Queries: single table; multiple table; combination of search criteria; text; numeric; date; logical.

Search criteria: equal match; unequal match; wildcard.

National Unit Specification: statement of standards (cont)

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Format: columns; sub totals; totals; headers; footers; page numbers; typeface; font size.

Outcome 4 — observation checklist and hard copy

An observation checklist must be submitted along with at least one hard copy of a report to provide evidence of Performance Criteria across the following range:

Output parameters: number of copies; print definition.

Destination: hard copy; magnetic storage.

Devices: printer; removable storage media.

National Unit Specification: support notes

UNIT Computer Application Package (Database): Practitioners

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is an optional Unit in the National Certificate Group Award in Administration (SCQF level 5).

The candidate should achieve the level of competence required of a regular user of information technology applications in a commercial or professional situation. Achievement of the Outcomes will require access to a personal computer or workstation. Current versions of commercially viable software should be used.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Each Outcome should not be treated as being isolated. It is suggested that a single task should allow integration of various Outcomes/Performance Criteria throughout the Unit.

All tasks carried out should be relevant to the candidate's vocational area wherever possible. Final versions of tables, forms, queries etc should be of a quality suitable for external presentation.

Corresponding to Outcomes:

1   Data provided on disk/shared drive, should be in a hierarchical file structure to allow the candidate the opportunity of locating the files.

    This Outcome is intended as an introductory one and so the coverage should be reasonably light.

2   A realistic database should be produced. It is expected that the database produced will be used with other Outcomes within this module.

    The data required can be provided in either paper form or in an unformatted form on disk.

    A minimum organisational standards document should be available within the centre in order to give the candidate a realistic standard against which to work. This standard should be of a reasonably short length (eg one A4 page).

    A relational type database is essential for this Outcome.

3   The term logical within the range should be interpreted as true/false, 0/1 or yes/no fields.

4   The candidate must be aware of the procedures for selecting and setting up of an appropriate hard copy device even if the centre has only a single device connected. In this situation it is suggested that the centre could add an additional printer driver to the system and allow the candidate to select the appropriate printer configuration through the software options.

National Unit Specification: support notes (cont)

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The candidate is additionally expected to ensure that it is on line, has paper loaded and is connected to the candidate's machine.

The range includes print definition but although some printers do not support draft mode etc, it is essential that the candidate is aware of this software feature.

The candidate is also expected to select a suitable directory as a destination. If the destination is a removable storage media device, the candidate is expected to ensure that it contains a suitable directory structure.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

There are opportunities for the candidate to develop aspects of the *IT* Core Skill at levels 4 and 5.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The assessment for this Unit should be open-book, under controlled conditions. Both hard copy and observation checklists should be used.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by information and communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003), SQA Guidelines on e-assessment for Schools (BD2625, June 2005).*

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (**www.sqa.org.uk**).