-SQA- SCOTTISH QUALIFICATIONS AUTHORITY

HIGHER NATIONAL UNIT SPECIFICATION

GENERAL INFORMATION

-Unit Number-   **8412495**

-Superclass-   **CX**

-Title-   **INFORMATION TECHNOLOGY APPLICATIONS 1**

-DESCRIPTION-

GENERAL COMPETENCE FOR UNIT: Using a computer system to run applications software.

OUTCOMES

1.   use operating environment to manage applications;

2.   produce formatted documents;

3.   model prescribed situations;

4.   store and retrieve information.

CREDIT VALUE: 1 HN Credit

ACCESS STATEMENT: There are no formal entry requirements for this unit.

For further information contact: Committee and Administration Unit, SQA, Hanover House, 24 Douglas Street, Glasgow G2 7NQ.

Additional copies of this unit may be purchased from SQA (Sales and Despatch section). At the time of publication, the cost is £1.50 (minimum order (£5.00).

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STATEMENT OF STANDARDS

UNIT NUMBER: 8412495

UNIT TITLE: INFORMATION TECHNOLOGY APPLICATIONS 1

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

OUTCOME

1.   USE OPERATING ENVIRONMENT TO MANAGE APPLICATIONS

PERFORMANCE CRITERIA

(a)   Operating environment commands are used correctly.
(b)   Common file types are identified, appropriately named and used correctly.
(c)   An efficient file storage structure is designed and set up.
(d)   Correct procedures are followed for the protection of data.

RANGE STATEMENT

Commands: file and directory creation; deletion; copying and listing; application invocation; media preparation.

File types: system; program; data; backup.

Protection procedures: virus checking; backup; media handling.

EVIDENCE REQUIREMENTS

Performance evidence that the candidate can use an operating environment as detailed in the performance criteria. This may be exhibited by a checklist and activity log supported by annotated file listings covering PCs (b) and (c).

OUTCOME

2.   PRODUCE FORMATTED DOCUMENTS

PERFORMANCE CRITERIA

(a)   Document text is error free.

- (b)   Page and line formatting are correctly used.
- (c)   Choice of typefaces is appropriate to the document content and specification.
- (d)   Document layout is appropriate to content and specification.
- (e)   print options are correctly specified.
- (f)   Documents are stored with appropriate names and retrieved.

RANGE STATEMENT

Formatting/layout: paper size/type; page centering; page numbering; headers and footers; top and bottom margins; tabs; left and right margins; indents; justification; line spacing.

Typeface: font; size; appearance (bold, italic, underlined); sub and super scripts.

Print options: full/partial document; printer selection; copies; print quality; preview.

EVIDENCE REQUIREMENTS

Performance evidence that the candidate can produce formatted documents as detailed in Performance Criteria (a) to (e). This may be demonstrated by the production of 2 or more printed documents totalling 5 or more pages fulfilling PCs (a) to (d) and observation or checklist covering PCs (e) and (f).

OUTCOME

3.   MODEL PRESCRIBED SITUATIONS

PERFORMANCE CRITERIA

- (a)   Worksheet cell contents and types accurately model specification.
- (b)   Cell properties and layout are appropriate to the content and specification.
- (c)   Functions and formulae used are appropriate to specification.
- (d)   Cell range operations are correctly used.
- (e)   Print options are correctly specified.
- (f)   Worksheets are stored with appropriate names and retrieved.

RANGE STATEMENT

Cell types: text; number (integer and real); currency; date.

Cell properties: size; justification; typeface; protected.

Functions: sum; average; maximum; minimum.

Formulae: conditional assignment; add; subtract; multiply; divide.

Cell range: cell; row; column; block.

Operations: absolute; relative; copy; move; insert; delete; sort.

Print options: full/partial worksheet; contents/formulae; printer selection; copies; print quality.

EVIDENCE REQUIREMENTS

Performance evidence that the candidate can produce models as detailed in Performance Criteria (a) to (e). This may be demonstrated by the production of 2 or more worksheets totalling a minimum of 50 active cells fulfilling PCs (a) to (d) and observation or checklist covering PC (e).

OUTCOME

    4.   STORE AND RETRIEVE INFORMATION

PERFORMANCE CRITERIA

(a)   A data structure is correctly implemented to meet a given specification.
(b)   Data records are entered and manipulated correctly.
(c)   Queries are carried out efficiently and meet given requirements.
(d)   Reports produced meet given criteria and are appropriately formatted.
(e)   Storage of information conforms with appropriate legislation.

RANGE STATEMENT

Data structure: field names; field types (to include text, number and date); field size; key fields.

Manipulation: data editing; sorting; insertion and deletion of records.

Query: alphanumeric; numeric; exact; wildcard.

Report format: report and page headers: column titles; totals and subtotals; fonts and typestyles.

EVIDENCE REQUIREMENTS

Performance evidence that the candidate can store and retrieve information as detailed in performance criteria. This may be demonstrated by printouts of 2 or more implemented data structures totalling a minimum of 10 fields and 50 records fulfilling PCs (a) and (b), observation or checklist covering PC (c), report hardcopy covering PC (d).

Evidence of understanding of legal requirements which may be in written form (PC (e)).

MERIT   A candidate who achieves all performance criteria for all outcomes will be awarded a pass. A pass with merit may be awarded where the candidate demonstrates superior performance by producing a document integrating text, worksheet and data structure elements.

ASSESSMENT

In order to achieve this unit, candidates are required to present sufficient evidence that they have met all the performance criteria for each outcome within the range specified. Details of these requirements are given for each outcome. The assessment instruments used should follow the general guidance offered by the SQA assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Accurate records should be made of the assessment instruments used showing how evidence is generated for each outcome and giving marking schemes and/or checklists, etc. Records of candidates' achievements should also be kept. These records will be available for external verification.

SPECIAL NEEDS

Proposals to modify outcomes, range statements or agreed assessment arrangements should be discussed in the first place with the external verifier.

HIGHER NATIONAL UNIT SPECIFICATION

SUPPORT NOTES

UNIT NUMBER: 8412495

UNIT TITLE: INFORMATION TECHNOLOGY APPLICATIONS 1

SUPPORT NOTES: This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

NOTIONAL DESIGN LENGTH: SQA allocates a notional design length to a unit on the basis of time estimated for achievement of the stated standards by a candidate whose starting point is as described in the access statement. The notional design length for this unit is 40 hours. The use of notional design length for programme design and timetabling is advisory only.

PURPOSE   This unit has been designed as an introduction to the use of computer application packages for candidates in any vocational area with little or no prior experience of the use of computer systems.

CONTENT/CONTEXT   The candidate should achieve the level of competence required of an occasional user of Information Technology Applications in a commercial or professional situation. Achievement of the outcomes will require access to a personal computer or workstation on an individual basis. Current versions of commercially-available software should be used. The components parts of an integrated software package may be used to achieve Outcomes 2, 3 and 4.

Documents, data etc. should be relevant to the candidate's vocational area wherever possible.

Where the term 'appropriate' is used in PCs this should be taken to imply suitability for purpose eg. an itinerary should not be formatted in the same way as a letter, and larger fonts sizes should be used for headings etc not body text.

Corresponding to Outcomes:

1.   Operating environment refers to DOS or GUI as appropriate to the particular installation. Use of both DOS and a GUI is encouraged wherever possible.

2.   A range of realistic document types should be produced (eg. menus, quotations, business letters).

3.   Cashflows, job costing, the results of scientific or technical investigations or other vocationally inspired problems should be provided.

4.   A database package or the database component of an integrated package would normally be used to achieve these outcomes however any package which covers the PCs and ranges could be used.

APPROACHES TO GENERATING EVIDENCE   A candidate-centred, resource-based learning approach is recommended.   During the course of the unit candidates should have several opportunities to develop their practical skills and should be assessed at appropriate points.

Concepts and terminology should be presented in context throughout the unit.

Where the candidate is unsuccessful in achieving an outcome provision should be made for remediation and reassessment.

ASSESSMENT PROCEDURES   Centres may use the instruments of assessment which are considered by the tutor/trainer to be the most appropriate. Examples of instruments of assessment which could be used are:

-        practical exercises
-        case studies
-        log books
-        assignments

PROGRESSION   This unit could contribute towards SQA Higher National Certificates, Higher National Diplomas and Professional Development Award. It is included in the national framework for HNC Computing, HND Computing (Software Development) and HND Computing (Support).

REFERENCES

1.   Guide to unit writing.
2.   For a fuller discussion on assessment issues, please refer to SQA's Guide to Assessment.
3.   Information for centres on SQA's operating procedures is contained in SQA's Guide to Procedures.
4.   For details of other SQA publications, please consult SQA's publications list.

An exemplar assessment pack for this unit is available from SQA. Please call our Sales and Despatch section on 0141 242 2168 to check availability and costs. Quote product code C045.