Module Descriptor
Computer Applications

Award Type: Minor
Award Level: 4
Award Code: 4N1112
Validation Date: 10th July 2012

Revision 1.0

Module Descriptor

Purpose: The purpose of this award is to equip the learner with the knowledge, skill and competence to use Database, Spreadsheets and Graphics software to create, modify and print a variety of documents for generic computer applications.

Module Duration: The learning effort required from a typical learner to successfully achieve the stated learning outcomes for the module is100 hours

Learning Outcomes: By the end of this module, the learner will be able to:

1. Describe a database structure, explain database and how database systems are used in organisations. Identify the types of data used in databases and state the advantages and disadvantages of using databases.

2. Use basic terminology associated with database use

3. Use database software to create and modify a database structure to include enter and edit data; add, edit and delete records; add new fields to an existing record; save a database

4. Perform basic data operations to include browsing, querying and sorting the database on a single field

5. Identify applications suitable for spreadsheets and describe how it should be structured

6. Use terminology appropriate to spreadsheet software

7. Use spreadsheet software to create a spreadsheet to include entering and editing numeric and character data

8. Modify a spreadsheet by inserting and deleting rows and columns, adjusting column widths and formatting column entries

9. Explain what is meant by loss prevention and detection, demonstrate and explain various patrolling techniques, and outline appropriate on-site cash handling procedures

10. Identify applications suitable for graphics software and use terminology appropriate to graphics software

11. Use graphic software to create drawings using clipart, colour, shape size, text and enhance text features

12. Produce a hard copy of drawings that have been modified using shape colour and size

Key Learning Points

Learning Outcome 1: Describe a database structure, explain database and how database systems are used in organisations. Identify the types of data used in databases and state the advantages and disadvantages of using databases.
Key Learning Points
- Describe the structure of a database.   - Recognising the use of:- - Tables - Reports - Forms - Queries   - Explain principal functions of database applications   - Explain how the database system is used in an organisation i.e. - storing information - sorting information   - Outline the types of information which could be sorted on a database system.

Learning Outcome 2: Use basic terminology associated with database use
Key Learning Points
- Use basic terminology appropriate to database software   - Identify terms associated with table structure to include: - Primary Key - Field Names - Field Size - Data Types - Records   - Recognise database objects including:- - Tables - Forms - Reports - Queries   - Use terminology appropriate to Data Types :- - Text - Date/Time - Currency - Number

Learning Outcome 3: Use database software to create and modify a database structure to include enter and edit data; add, edit and delete records; add new fields to an existing record; save a database

Key Learning Points
• Design and create a database assigning the appropriate field names; field sizes and data types   • Enter data into a database   • Edit data in a database   • Add records to database   • View and edit an existing record   • Select records for deletion   • Delete selected records   • Add a new field to an existing record   • Save a database to a specific location

Learning Outcome 4: Perform basic data operations to include browsing, querying and sorting the database on a single field
Key Learning Points
• Perform basic database operations   • Browse information stored on an existing database   • Query the database table on a single field   • Sort the data in the database using the sort function   • Save new information added to an existing database

Learning Outcome 5: Identify applications suitable for spreadsheets and describe how it should be structured
Key Learning Points
• Identify applications suitable for spreadsheets   • Describe the structure of a spreadsheet   • List the main features of spreadsheets   • Outline the common uses of spreadsheets   • Describe how a spreadsheet makes it easy to display and manipulate information   • Navigate specific cell references

Learning Outcome 6: Use terminology appropriate to spreadsheet software
Key Learning Points

• Use basic terms associated with spreadsheets to include:
   - workbook
   - worksheet

- row
  - column and cell
  - tab
  - formula
  - filtering
  - sorting
  - function
  - chart
- Recognise spreadsheet objects such as
  - Graphs
  - Grid Lines
  - Rows and columns
  - Sheets and sheet tabs
- Identify and use terms that refer to manipulation of the data
  - Cell reference
  - Formula
  - Active cell
  - Auto sum
  - Fill and format
  - Make corrections
  - Save work
- Develop a glossary of spreadsheet technology

Learning Outcome 7: Use spreadsheet software to create a spreadsheet to include entering and editing numeric and character data

Key Learning Points

- Load a spreadsheet application
- Create a spreadsheet file
- Name a spreadsheet
- Enter numeric and character data in specific rows and columns in a spreadsheet
- Edit numeric and character data in a spreadsheet
- Save to an appropriate storage medium
- Close the file

Learning Outcome 8: Modify a spreadsheet by inserting and deleting rows and columns, adjusting column widths and formatting column entries

Key Learning Points

- Open a spreadsheet from an appropriate storage device
- Navigate around the spreadsheet, using the keyboard and mouse
- Select cells, rows and columns in the spreadsheet using the mouse

- Insert column or row above/ below / to the right and left
- Delete column and row above/below to the right and left
- Insert/delete a selected number of columns and rows
- Format cell values to general, number, decimal, percentage, currency
- Insert and delete new data
- Format the width of a column both manually and automatically using auto fit, ensuring display correct

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Learning Outcome 9: Apply a range of formulae and functions over a range of cells using relative cell referencing to include mathematical operators, SUM and AVERAGE functions

Key Learning Points

- Create basic formulae
- Use the following basic mathematical operators:-
  - addition
  - subtraction
  - multiplication
  - division
  - sum
  - average
- Construct a formula to calculate an 'average' from a range of cells
- Construct a formula to calculate the 'sum' of a range of cells
- Use the 'auto sum' function
- Use the 'average' function
- Copy formulae over a range of consecutive cells

Learning Outcome 10: Identify applications suitable for graphics software and use terminology appropriate to graphics software

Key Learning Points

- Identify applications suitable for graphics software
- Explain what graphics software could be used for in
  - the home
  - in business
  - in education
- Describe how a graphics software makes it easy and effective to display and communicate information
- Highlight four different edits that can be applied to a picture or shape by graphic software to enhance its appearance
- Use terminology appropriate to graphics software:
  - Auto shape

- Clipart
- 3 D
- Fill/ Format
- Font
- Crop

Learning Outcome 11: Use graphic software to create drawings using clipart, colour, shape size, text and enhance text features

Key Learning Points

- Create a drawing using clipart
- Create an auto shape
- Fill an auto shape with colour
- Insert a picture into an auto shape
- Text wrap an object
- Insert clipart
- Resize a picture
- Insert Word Art
- Insert a text box
- Apply basic text formatting of:-
  Bold
  Italics
  Underline
  Font
  Font Size
  Colour
  Style
- Use enhance text features

Learning Outcome 12: Produce a hard copy of drawings that have been modified using shape colour and size

Key Learning Points

- Use Auto shapes, Pictures and Clipart to create drawings
- Modify drawings
- Insert a table
- Use a table to display pictures
- Insert pictures into a table
- Resize pictures
- Apply a design to a table
- Print drawings and tables

Assessment Specification

Award Title	Computer Applications
Award Type	Minor
Award Code:	4N1112
Credit Value :	10

Assessment No.	Duration	Assessment Details	Weighting	Stage at which assessment takes place
EX1 (practical & theory based)	1.5 hr	Database	35%	End of Programme
EX2 (practical & theory based)	1.5 hr	Spreadsheets	35%	End of Programme
EX3 (practical, theory based)	1.5 hr	Computer Graphics	30%	End of Programme

Award Classifications

Grades	Standards
Pass Merit Distinction	50 - 64% 65 - 79% 80 -100%

Suggested Learning Methodologies

- Worksheets
- Brainstorming
- Group work
- Discussion
- Internet research
- Case studies
- Private study

Specific Module Requirements

The following is a recommended list. The list is not definitive as some of the items listed may not be essential in order to run the course. Items other than those listed may also be acquired for the course at the discretion of the Manager.
PC as per FAS specification (with applications for spreadsheet, database and graphics)
Printer
USB Memory Stick

Suggested Learning Resources

LO1 & 2 Course Resources: Database Software Mix and Match

LO3 Course Resources: Database Personal Phone Book

LO4 Course Resources: Operate a Database; File: PersonalPhoneBook.mdb (created from LO 3 resource)

LO5 Course Resources: Structure and use of a spreadsheet; File StructureanUseResource.xls

LO6 Course Resources: Spreadsheet Terminology Word Search

LO7 Course Resources: Create, enter and edit data in a spreadsheet

LO8 course Resources: Modify a spreadsheet; File: Cardinformatio.xls (created in LO7)

LO9 Course Resources: Apply a range of formulae and functions over a range of cells using relative cell referencing; File : CardInofrmation.xls (created for LO7&8)

LO10 Course Resources: Uses of Graphic Software

Course Resources LO11: Use Graphic Software to Create Drawings; File :
Communicatewith yourcomputer.jpeg

Course Resources LO12: Print ; Files: Puppies.jpeg, Laptop.jpeg,
Socialmedia.jpeg

Access to the following online resources
Microsoft office Support - http://office.microsoft.com/en-us/support/:

Recommended by: _____
                          Manager Training Policy Development and Support

Approved by: _____
                          Director Training Policy Development and Support