



Australian Government

Department of Education, Employment and Workplace Relations

BSBADM404A Develop and use complex spreadsheets

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the use of spreadsheet software to complete business tasks and produce usable complex documents.

This unit is related to BSBCMN214A Create and use simple spreadsheets.

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Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Use safe work practices	1.1 Workspace, furniture and equipment are adjusted to suit the ergonomic requirements of the user 1.2 Work organisation meets organisational and statutory requirements for computer operation 1.3 Energy and resource conservation techniques are used to minimise wastage in accordance with organisational and statutory requirements
2 Develop a linked spreadsheet solution	2.1 Task is analysed and specifications for spreadsheets are determined 2.2 Organisational and task requirements in relation to data entry, storage, output, reporting and presentation requirements are identified 2.3 Spreadsheet design utilises software functions and formulae to meet identified requirements 2.4 Spreadsheets are linked in accordance with software procedures 2.5 Cells are formatted and data attributes assigned with relative and/or absolute cell references used in accordance with the task specifications 2.6 Formulae are tested to confirm output meets task requirements
3 Automate and standardise spreadsheet operation	3.1 Tasks are evaluated to identify those where automation would increase efficiency 3.2 Macros are created, used and edited to fulfil the requirements of the task and automate spreadsheet operation 3.3 Templates are developed, edited and used to ensure consistency of design and layout for forms and reports in accordance with organisational requirements

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|---|--|---|
| 4 | Use spreadsheets | 4.1 Data is entered, checked and amended in accordance with organisational and task requirements |
| | | 4.2 Data is imported / exported between compatible spreadsheets and host documents adjusted in accordance with software and system procedures |
| | | 4.3 Manuals, user documentation and on-line help are used to overcome problems with spreadsheet design and production |
| | | 4.4 Spreadsheet is previewed, adjusted and printed in accordance with organisational and task requirements |
| | | 4.5 Spreadsheet is named and stored, in accordance with organisational requirements and the application exited without data loss/damage |
| 5 | Represent numerical data in graphic form | 5.1 Style of graph is determined to meet specified requirements and spreadsheet data is manipulated if necessary to suit graph requirements |
| | | 5.2 Graphs are created with labels and titles from numerical data contained in a spreadsheet file |
| | | 5.3 Graph is saved, viewed and printed within designated timelines |

Required Skills and Knowledge

Not applicable.

Evidence Guide

The Evidence Guide identifies the critical aspects, underpinning knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statement.

Critical Aspects of Evidence

Integrated demonstration of all elements of competency and their performance criteria

Successful operation of linked spreadsheets

Knowledge and application of advanced spreadsheet features

Underpinning Knowledge

* At this level the learner must demonstrate understanding of a broad knowledge base incorporating some theoretical concepts.

Relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination

Advanced functions of spreadsheet software applications

Impact of formatting and design on the presentation and readability of data

Organisational policies and procedures

Underpinning Skills

Literacy skills to interpret and evaluate the purposes and uses of various features of spreadsheets; use a variety of strategies for planning and reviewing own work

Proofreading and editing skills to check for accuracy and consistency of information by consulting additional resources

Problem solving skills to use processes flexibly and interchangeably

Numeracy skills to collate and present data; graphs and related references

Communication skills to follow complex oral instructions when using technology; listen to and interpret complex sequenced instructions

Keyboarding skills

Ability to relate to people from a range of social, cultural and ethnic backgrounds and physical and mental abilities

Resource Implications

The learner and trainer should have access to appropriate documentation and resources normally used in the workplace which may include:

workplace references such as computer user manuals, organisational policies and procedures and workplace procedural manuals

computer equipment including relevant software, printer

guide/examples of 'house style'

equipment (eg paper and other materials)

Consistency of Performance

In order to achieve consistency of performance, evidence should be collected over a set period of time which is sufficient to include dealings with an appropriate range and variety of situations

Context/s of Assessment

Competency is demonstrated by performance of all stated criteria, including paying particular attention to the critical aspects and the knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statement

Assessment must take account of the endorsed assessment guidelines in the Business Services Training Package

Assessment of performance requirements in this unit should be undertaken in an actual workplace or simulated environment

Assessment should reinforce the integration of the key competencies and the business services common competencies for the particular AQF level. Refer to the Key Competency Levels at the end of this unit

Key Competency Levels

Collecting, analysing and organising information (Level 2)- to determine spreadsheet requirements

Communicating ideas and information (Level 1)- through well-designed linked spreadsheets

Planning and organising activities (Level 1)- to link spreadsheets and meet task requirements

Working with teams and others (Level 1)- to determine spreadsheet purpose / use

Using mathematical ideas and techniques (Level 1)- to utilise functions and formulae

Solving problems (Level 2)- using manuals and on-line help

Using technology (Level 2)- to develop and use complex spreadsheets

Please refer to the Assessment Guidelines for advice on how to use the Key Competencies

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Range Statement

The Range Statement provides advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment. The following variables may be present for this particular unit:

Legislation, codes and national standards relevant to the workplace which may include:

- award and enterprise agreements and relevant industrial instruments
- relevant legislation from all levels of government that affects business operation, especially in regard to Occupational Health and Safety and environmental issues, equal opportunity, industrial relations and anti-discrimination
- relevant industry codes of practice

Organisational policy and procedures may include:

- log-on procedures
- password protection
- storage / location of data
- standard formats
- author's instructions
- use of templates

Ergonomic requirements may include:

- workstation height and layout
- chair height, seat and back adjustment
- footrest
- screen position
- keyboard and mouse position
- document holder
- posture
- avoiding radiation from computer screens
- lighting
- noise minimisation

Work organisation may include:

- mix of repetitive and other activities
- rest periods
- exercise breaks

Conservation techniques may include:

- double-sided paper use
- re-used paper for rough drafts (observing confidentiality requirements)
- recycling used and shredded paper
- utilising power-save options for equipment

Spreadsheet design may include:

- Analysis
- Appropriateness
- identification and parameters
- formulae
- functions
- relative and absolute cell references
- headings and labels
- import and export of data

linked formulae
formatting and reformatting
headings
labels
multi-page documents
headers and footers
split screen operation
embedding cell references in formulae
avoidance of blank rows and columns

Functions may include:

mathematical functions (square root, integer, absolute value, round)
statistical functions (standard deviation, count, maximum, minimum)
basic financial functions (if available)
date functions
logical functions (lookup, if, choose, true, false, conditions)
simple nested functions

Formulae may include:

Addition
Subtraction
Multiplication
Division
Percentage
Exponentiation
Comparison
Average
combinations of above

Macros may include:

printing sections of a spreadsheet

Templates may include:

Forms
Reports
headers/footers
page formats
font types and sizes
headings

Importing/exporting:

is achieved without requiring an intermediary step
may include:

linking formulae
reformatting
split screen (if available)
proofreading

Printing may include:

entire workbooks
worksheets
selected data within a worksheet
charts

Storage of data may include:

storage in folders / sub-folders
storage on hard/floppy disk drives, CDROM, tape backup
organisation policy for backing up files
organisation policy for filing hard copies of spreadsheets
filing locations
security
authorised access

Graphs may include:

Bar
Line
Pie
Stack
Scatter
3D

Graph creation may include:

using graph menu
data range
X and Y axis
Labels and titles
Naming
keys and legends
sizing (if possible)

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Unit Sector(s)

Not applicable.