

Unit 315 Spreadsheet software Level 3

Unit Summary

Use spreadsheet software to produce spreadsheets for analysing and interpreting complex data. This is based on the e-skills Area of Competence: Spreadsheet Software, Level 3 unit.

Skills

You will apply the following skills:

- Analysing
- Interpreting
- Planning
- Organising
- Communicating
- Using technology
- Using number
- Checking

Performance indicators

You will:

1. Convert files to another suitable format, where necessary
2. Export and import, link objects between different software
3. Make references to external data, e.g. hyperlinks, object linking, embedding
4. Use advanced techniques for combining or merging versions of information from different users
5. Use advanced editing techniques appropriately in technically complex spreadsheets, such as hide and protect cells, create a wide range of types of chart and create, modify and merge multiple copies of a shared workbook
6. Format complex spreadsheets for using appropriate tools and techniques for cells (data type) conditional formatting, charts (font, number format, axis scale, colour, annotation and layout) and pivot table reports
7. Check the validity, relevance and accuracy of analysis and the interpretation of calculations and results
8. Use appropriate functions and formulas in technically complex spreadsheets, such as look-up, arguments, arrays and formulas for validating data

9. Use appropriate tools and techniques for analysing complex data, such as retrieving text and data from a table or preformatted area on a web page, adding data restrictions, adding messages to data, data validation, using formula to determine valid entries for cells, displaying data according to interest, using pivot tables to create, rotate rows and columns and filter data by displaying different pages and creating data maps with titles, text and pin maps.
10. Use appropriate methods to present complex data, such as views, pivot tables and pivot table reports
11. Customise menus and toolbars and automate common tasks such as using macros

Knowledge

You will know:

1. How to produce information that communicates effectively, by structuring the content to take account of different context and audience needs
2. How to produce spreadsheets that are technically complex in terms of content and analysis, as well as the understanding, skills and techniques needed to produce them
3. What methods can be used for complex data, such as to compare related totals or predict trends

Evidence Requirements

This section is aimed at the assessor and sets out the evidence requirements for this unit.

1. Evidence for this unit is generated when your candidate is carrying out real work in a private sector organisation, not-for-profit organisation or public service organisation whether full-time or part-time, paid or voluntary.
2. For this unit, evidence may be collected in an approved Realistic Working Environment or an extended work placement.
3. Simulation is allowed for this unit. Simulation refers to the simulation of work tasks and activities, not to the use of IT. The techniques involved in using IT must always be assessed at least in part through evidence gained from practical tasks or activities. All assessment must be based on the use of real IT software and hardware to carry out tasks and activities that may be simulated. Where tasks and activities are simulated they must be undertaken in an approved Realistic Working Environment.
4. Evidence must show that your candidate has consistently met the standard over a sufficient period of time for you to consider the candidate competent.
5. You may use the following assessment methods when assessing this unit:

Performance evidence	Observation	Yes
	Examination of work products	Yes
Supplementary evidence	Witness testimony	Optional
	Questions *	Yes

* This includes verbal and written questioning, questionnaires, work based tasks, reflective accounts, case studies, professional discussion and feedback reports.

6. Your candidate needs to demonstrate the following skills and techniques by carrying out **at least three** substantial and complex tasks to demonstrate their competence in:

File handling techniques appropriate for the software use. Evidence will include:

- Converting files from another suitable format, where necessary

Ways of combining information of various types. Evidence will include:

- Exporting and importing, linking objects between different software
- Making references to external data, such as hyperlinks, object linking and embedding
- Using advanced techniques for combining or merging versions of information from different users

Techniques for entering data and editing spreadsheets. Evidence will include:

- Using advanced editing techniques appropriately in technically complex spreadsheets, such as
 - Hide and protect cells
 - Create a wide range of types of chart
 - Create, modify and merge multiple copies of a shared workbook

Formatting spreadsheets using appropriate techniques for cells, rows, columns, pages and charts. Evidence will include:

- Formatting complex spreadsheets using appropriate tools and techniques such as for
 - Cells e.g. data type
 - Conditional formatting
 - Charts e.g. font, number format, axis scale, colour, annotation and layout
 - Pivot table reports

Checking information in spreadsheet documents. Evidence will include:

- Checking the validity, relevance and accuracy of analysis and the interpretation of calculations and results

Selecting and using appropriate functions and formulas in spreadsheets. Evidence will include:

- Using appropriate functions and formulas in technically complex spreadsheets, such as look-up, arguments, arrays and formulas for validating data

Analysing and interpreting simple, more complex and complex data. Evidence will include:

- Using appropriate tools and techniques for analysing complex data, such as
 - Retrieving text and data from a table or pre-formatted area on a web page
 - Adding data restrictions
 - Adding messages to data
 - Data validation
 - Using formulas to determine valid entries for cells
 - Displaying data according to interest
 - Using pivot tables to create, rotate rows and columns and filter data by displaying different pages
 - Creating data maps with titles, text and pin maps

Presenting simple, more complex, and complex data in spreadsheets. Evidence will include:

- Using appropriate methods to present complex data, such as views, pivot tables and pivot table reports

Ways of improving efficiency. Evidence will include:

- Customising menus and toolbars
- Automating common tasks, such as using macros

7. Evidence generated for this unit may contribute towards Unit 301:

- Communicate information
- Plan and be accountable for your work
- Improve your own performance
- Behave in a way that supports effective working

and Unit 302

- Work to achieve your organisation's purpose and values
- Support sustainability
- Maintain security and confidentiality