



ECDL



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# ECDL MODULE **ADVANCED SPREADSHEETS**

Syllabus Version 3.0

**Purpose**

This document details the syllabus for the Advanced Spreadsheets module. The syllabus describes, through learning outcomes, the knowledge and skills that a candidate for the Advanced Spreadsheets module should possess. The syllabus also provides the basis for the practice-based test in this module.

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## Advanced Spreadsheets

This module sets out advanced skills that can be used to produce sophisticated reports, to perform complex mathematical and statistical calculations, and to improve productivity using a spreadsheet application.

### Module Goals

Successful candidates will be able to:

- Apply advanced formatting options such as conditional formatting and customised number formatting and handle worksheets.
- Use functions such as those associated with logical, statistical, financial and mathematical operations.
- Create charts and apply advanced chart formatting.
- Work with tables and lists to analyse, filter and sort data. Create and use scenarios.
- Validate and audit spreadsheet data.
- Enhance productivity by working with named cell ranges and macros.
- Use linking, embedding and importing features to integrate data.
- Compare and merge spreadsheets. Apply spreadsheet security features.

CATEGORY	SKILL SET	REF.	TASK ITEM
<b>1 Formatting</b>	<i>1.1 Cells</i>	1.1.1	Apply conditional formatting.
		1.1.2	Create and apply custom number formats.
		1.1.3	Split text to columns.
	<i>1.2 Worksheets</i>	1.2.1	Copy, move worksheets between spreadsheets.
		1.2.2	Split a window. Move, remove split bars.
		1.2.3	Hide, show rows, columns, worksheets.
		1.2.4	Save a spreadsheet as a template, modify a template.
<b>2 Formulas and Functions</b>	<i>2.1 Using Formulas and Functions</i>	2.1.1	Use date and time functions: today, now, day, month, year.
		2.1.2	Use logical functions: and, or, not.
		2.1.3	Use mathematical functions: rounddown, roundup, sumif.
		2.1.4	Use statistical functions: countif, countblank, rank.
		2.1.5	Use text functions: left, right, mid, trim, concatenate.
		2.1.6	Use financial functions: fv, pv, pmt.
		2.1.7	Use lookup functions: vlookup, hlookup.

CATEGORY	SKILL SET	REF.	TASK ITEM
		2.1.8	Use database functions: dsum, dmin, dmax, dcount, daverage.
		2.1.9	Create a two-level nested function.
		2.1.10	Use a 3-D reference within a sum, average, minimum, maximum function.
		2.1.11	Use mixed references in formulas.
<b>3 Charts</b>	<i>3.1 Creating Charts</i>	3.1.1	Create a combined chart like: column and line, column and area.
		3.1.2	Create, change, delete a sparkline.
		3.1.3	Add a secondary axis to a chart.
		3.1.4	Change the chart type for a defined data series.
		3.1.5	Add, delete a data series in a chart.
	<i>3.2 Formatting Charts</i>	3.2.1	Re-position chart title, legend, data labels.
		3.2.2	Change scale of value axis: minimum, maximum number to display, major interval.
		3.2.3	Change display units on value axis without changing data source: hundreds, thousands, millions.
		3.2.4	Format columns, bars, pie slices, plot area, chart area to display an image.
<b>4 Analysis</b>	<i>4.1 Using Tables</i>	4.1.1	Create, modify a pivot table/datapilot.
		4.1.2	Modify the data source and refresh the pivot table/datapilot.
		4.1.3	Filter, sort data in a pivot table/datapilot.
		4.1.4	Automatically, manually group data in a pivot table/datapilot and rename groups.
		4.1.5	Use one-input, two-input data tables/multiple operations tables.
	<i>4.2 Sorting and Filtering</i>	4.2.1	Sort data by multiple columns at the same time.
		4.2.2	Create a customized list and perform a custom sort.
		4.2.3	Automatically filter a list in place.
		4.2.4	Apply advanced filter options to a list.
		4.2.5	Use automatic, manual outline features: group, ungroup, sub-total.

CATEGORY	SKILL SET	REF.	TASK ITEM
		4.2.6	Expand, collapse outline detail levels.
	<i>4.3 Scenarios</i>	4.3.1	Create named scenarios.
		4.3.2	Show, edit, delete scenarios.
		4.3.3	Create a scenario summary report.
<b>5 Validating and Auditing</b>	<i>5.1 Validating</i>	5.1.1	Set, edit validation criteria for data entry in a cell range like: whole number, decimal, list, date, time.
		5.1.2	Enter input message and error alert.
	<i>5.2 Auditing</i>	5.2.1	Trace precedent, dependent cells. Identify cells with missing dependents.
		5.2.2	Display all formulas in a worksheet, rather than the resulting values.
		5.2.3	Insert, edit, delete, show, hide comments/notes in a worksheet locally, online.
<b>6 Enhancing Productivity</b>	<i>6.1 Naming Cells</i>	6.1.1	Name cell ranges, delete names for cell ranges.
		6.1.2	Use named cell ranges in a function.
		6.1.3	Activate, deactivate the group mode.
	<i>6.2 Paste Special</i>	6.2.1	Use paste special options: add, subtract, multiply, divide.
		6.2.2	Use paste special options: values /numbers, transpose.
	<i>6.3 Linking, Embedding and Importing</i>	6.3.1	Insert, edit, remove a hyperlink.
		6.3.2	Link data within a spreadsheet, between spreadsheets.
		6.3.3	Update, break a link.
		6.3.4	Import delimited data from a text file.
	<i>6.4 Automation</i>	6.4.1	Record a simple macro like: change page setup, apply a custom number format, apply autoformats to a cell range, insert fields in worksheet header, footer.
		6.4.2	Run a macro.
		6.4.3	Assign a macro to a custom button.
<b>7 Collaborative Editing</b>	<i>7.1 Reviewing and Security</i>	7.1.1	Compare and merge spreadsheets.

CATEGORY	SKILL SET	REF.	TASK ITEM
		7.1.2	Add, remove password protection for a spreadsheet: to open, to modify.
		7.1.3	Protect, unprotect cells, worksheet with a password.
		7.1.4	Hide, unhide formulas.