

## Advanced Spreadsheets (AM4)

The following is the Syllabus for *Advanced Spreadsheets*, which provides the basis for the module's practice-based test. The Syllabus for AM4 is over and above the skills and knowledge contained within ECDL / ICDL Module 4, *Spreadsheets*. The Advanced Spreadsheets Module anticipates that the candidate has already acquired the skills and knowledge outlined in ECDL / ICDL Module 4.

### Module Goals

**Advanced Spreadsheets** requires the candidate to use the spreadsheet application to produce advanced spreadsheet outputs.

The candidate shall 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 features.
- 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, macros and templates.
- Use linking, embedding and importing features to integrate data.
- Collaborate on and review spreadsheets. Apply spreadsheet security features.

CATEGORY	SKILL SET	REF.	TASK ITEM
AM4.1 Formatting	AM4.1.1 Cells	AM4.1.1.1	Apply an autoformat/table style to a cell range.
		AM4.1.1.2	Apply conditional formatting based on cell content.
		AM4.1.1.3	Create and apply custom number formats.
	AM4.1.2 Worksheets	AM4.1.2.1	Copy, move worksheets between spreadsheets.
		AM4.1.2.2	Split a window. Move, remove split bars.
		AM4.1.2.3	Hide, show rows, columns, worksheets.

CATEGORY	SKILL SET	REF.	TASK ITEM
<b>AM4.2 Functions and Formulas</b>	<i>AM4.2.1 Using Functions and Formulas</i>	AM4.2.1.1	Use date and time functions: today, now, day, month, year.
		AM4.2.1.2	Use mathematical functions: rounddown, roundup, sumif.
		AM4.2.1.3	Use statistical functions: countif, countblank, rank.
		AM4.2.1.4	Use text functions: left, right, mid, trim, concatenate.
		AM4.2.1.5	Use financial functions: fv, pv, pmt.
		AM4.2.1.6	Use lookup functions: vlookup, hlookup.
		AM4.2.1.7	Use database functions: dsum, dmin, dmax, dcount, daverage.
		AM4.2.1.8	Create a two-level nested function.
		AM4.2.1.9	Use a 3-D reference within a sum function.
		AM4.2.1.10	Use mixed references in formulas.
<b>AM4.3 Charts</b>	<i>AM4.3.1 Creating Charts</i>	AM4.3.1.1	Create a combined column and line chart.
		AM4.3.1.2	Add a secondary axis to a chart.
		AM4.3.1.3	Change the chart type for a defined data series.
		AM4.3.1.4	Add, delete a data series in a chart.
	<i>AM4.3.2 Formatting Charts</i>	AM4.3.2.1	Re-position chart title, legend, data labels.
		AM4.3.2.2	Change scale of value axis: minimum, maximum number to display, major interval.
		AM4.3.2.3	Change display units on value axis without changing data source: hundreds, thousands, millions.
		AM4.3.2.4	Format columns, bars, plot area, chart area to display an image.
<b>AM4.4 Analysis</b>	<i>AM4.4.1 Using Tables</i>	AM4.4.1.1	Create, modify a pivot table/datapilot.
		AM4.4.1.2	Modify the data source and refresh the pivot table/datapilot.
		AM4.4.1.3	Filter, sort data in a pivot table/datapilot.

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		AM4.4.1.4	Automatically, manually group data in a pivot table/datapilot and rename groups.
		AM4.4.1.5	Use one-input, two-input data tables/multiple operations tables.
	<i>AM4.4.2 Sorting and Filtering</i>	AM4.4.2.1	Sort data by multiple columns at the same time.
		AM4.4.2.2	Create a customized list and perform a custom sort.
		AM4.4.2.3	Automatically filter a list in place.
		AM4.4.2.4	Apply advanced filter options to a list.
		AM4.4.2.5	Use automatic sub-totalling features.
		AM4.4.2.6	Expand, collapse outline detail levels.
	<i>AM4.4.3 Scenarios</i>	AM4.4.3.1	Create named scenarios.
		AM4.4.3.2	Show, edit, delete scenarios.
		AM4.4.3.3	Create a scenario summary report.
<b>AM4.5 Validating and Auditing</b>	<i>AM4.5.1 Validating</i>	AM4.5.1.1	Set, edit validation criteria for data entry in a cell range like: whole number, decimal, list, date, time.
		AM4.5.1.2	Enter input message and error alert.
	<i>AM4.5.2 Auditing</i>	AM4.5.2.1	Trace precedent, dependent cells. Identify cells with missing dependents.
		AM4.5.2.2	Show all formulas in a worksheet, rather than the resulting values.
		AM4.5.2.3	Insert, edit, delete, show, hide comments/notes.
<b>AM4.6 Enhancing Productivity</b>	<i>AM4.6.1 Naming Cells</i>	AM4.6.1.1	Name cell ranges, delete names for cell ranges.
		AM4.6.1.2	Use named cell ranges in a function.
	<i>AM4.6.2 Paste Special</i>	AM4.6.2.1	Use paste special options: add, subtract, multiply, divide.
		AM4.6.2.2	Use paste special options: values /numbers, transpose.
	<i>AM4.6.3 Templates</i>	AM4.6.3.1	Create a spreadsheet based on an existing template.

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		AM4.6.3.2	Modify a template.
	<i>AM4.6.4 Linking, Embedding and Importing</i>	AM4.6.4.1	Insert, edit, remove a hyperlink.
		AM4.6.4.2	Link data within a spreadsheet, between spreadsheets, between applications.
		AM4.6.4.3	Update, break a link.
		AM4.6.4.4	Import delimited data from a text file.
	<i>AM4.6.5 Automation</i>	AM4.6.5.1	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.
		AM4.6.5.2	Run a macro.
		AM4.6.5.3	Assign a macro to a custom button on a toolbar.
<b>AM4.7 Collaborative Editing</b>	<i>AM4.7.1 Tracking and Reviewing</i>	AM4.7.1.1	Turn on, off track changes. Track changes in a worksheet using a specified display view.
		AM4.7.1.2	Accept, reject changes in a worksheet.
		AM4.7.1.3	Compare and merge spreadsheets.
	<i>AM4.7.2 Security</i>	AM4.7.2.1	Add, remove password protection for a spreadsheet: to open, to modify.
		AM4.7.2.2	Protect, unprotect cells, worksheet with a password.
		AM4.7.2.3	Hide, unhide formulas.