

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**Cambridge International Diploma in IT Skills
Standard Level**

Scheme of Work

5283
Spreadsheets
Core Module



UNIVERSITY *of* CAMBRIDGE
International Examinations

Introduction

This application is designed to build on the spreadsheet skills acquired at Foundation level. The candidate should possess the skills and knowledge required to understand and perform everyday uses of a spreadsheet package to create a spreadsheet, arrange data and make simple calculations.

What is Assessed in this Module?

Candidates will demonstrate the ability to:

- use spreadsheets
- format spreadsheets
- move data between spreadsheets
- use arithmetic and logical formulae
- produce graphs/charts
- store and retrieve graphs
- use 3-D graphics
- print spreadsheets
- use the help facility

Underpinning Knowledge

Candidates should know how to:

- open, close, edit and amend spreadsheets
- enter, edit and sort data
- format cells
- enter and apply simple formulae
- save and print spreadsheets

Tutor Preparation Required to Deliver this Module

Below is a checklist of what you will need to set up before you run the course. Some of the items, such as an overhead projector, are optional.

You will need to:

- ideally, have one computer (PC) per candidate with MS Windows 95/98/NT/2000/XP and MS Excel 97/2000/2002 (and optionally Word 97/2000/2002) preloaded (although candidates can also share PCs)
- ensure that the candidates have access to a printer – local or networked – that all candidates can print to
- load the following workbook files from the Trainer disk onto the tutors PC: Costs, Cake, Flags, Cars, Round, Household
- create a folder on each PC containing the exercise data from the floppy disc (C:\My Documents) and a folder for candidates to save their work to (C:\My Documents\Candidate)
- have overhead projector and screen OR PC with LCD projector/large monitor
- have a flip chart, pens and whiteboard
- CIE Support Guide
- have name cards, paper and pens for the candidates

General Principles and Procedures

If using a network to deliver this course you may prepare documents showing candidates how to log on.

Important Note

This application module is only available for assessment using Microsoft Excel 97, Excel 2000 or Excel 2002.

Scheme of Work

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan One (1.25hrs)				
<ul style="list-style-type: none"> introduction and course objectives getting started with MS Excel use spreadsheets 	<ul style="list-style-type: none"> 3.1 	<ul style="list-style-type: none"> introduction of trainer, course and candidates launch Excel 97/2000/2002 from Office toolbar, desktop icon or Start menu revision of skills assessed at Foundation level revise skills of opening, creating and saving spreadsheets explain there are 4 data entry types that can be used in Excel demonstrate how to enter and confirm the entry of data demonstrate how to use the AutoFill facility 	<ul style="list-style-type: none"> CIE Tutor Support Guide CIE Candidate Support Guide OHTs additional exercises for each Performance Criterion 	<p>It is important to let the candidates know what will be assessed at the end of the module. Tutors could provide a checklist with objectives that can be ticked off after each session so that candidates can track their progress.</p> <p>Use the additional exercises to reinforce the skills the candidates have learned for each Performance Criterion.</p> <p>Advise candidates that Excel will prompt them to save any unsaved data before closing. Remind them it is advisable to do so!</p> <p>Autofill is a function that copies the entry in the active cell into a range of adjacent cells. The fill can be used only in straight lines. Autofill can be performed through using the mouse or from the menu.</p> <p>There are standard Autofill lists in Excel such as Months of the Year, Days of the week. The user can add customised Autofill Lists.</p>

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan One (1.25hrs) Continued				
<ul style="list-style-type: none"> use the help facility 	<ul style="list-style-type: none"> 3.9 	<ul style="list-style-type: none"> explain that the Office Assistant is an easy way to get help show how to display the Office Assistant demonstrate how to run a search for help demonstrate ScreenTips for an area of the Excel window demonstrate ScreenTips in a dialogue box 	<ul style="list-style-type: none"> CIE Tutor Support Guide CIE Candidate Support Guide OHTs additional exercises for each Performance Criterion 	<p>To access ScreenTips for an area of the Excel window, go to the help menu and select What's This?</p> <p>To access ScreenTips in a dialogue box, first display the dialogue box for which help is required, then click the? Mark at the top right-hand corner of the dialogue box.</p>

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Two (1.5hrs)				
<ul style="list-style-type: none"> move data between spreadsheets use arithmetic and logical formulae. 	<ul style="list-style-type: none"> 3.3 3.4 	<ul style="list-style-type: none"> demonstrate moving data using Drag-and-Drop explain the difference between deleting and clearing the contents of a cell demonstrate the use of the Cut, Copy and Paste facilities to move data explain the use of the Clipboard to store data prior to pasting into a new location explain how a spreadsheet can be divided into worksheets which can be renamed and moved to give a logical order demonstrate how data can be moved between worksheets revise formulae skills introduced at Foundation Level explain Absolute and Relative cell referencing demonstrate the uses of these facilities explain Circular references demonstrate a situation when circular referencing may occur 	<ul style="list-style-type: none"> CIE Tutor Support Guide CIE Candidate Support Guide OHTs additional exercises for each Performance Criterion 	<p>If data has been entered but then needs to be moved, it can be easily moved without retyping. Drag-and-drop will overwrite any existing cell contents. The contents and/or formatting of a cell can be cleared at the same time or separately where as deleting will only remove the contents of a cell. There are 3 ways to do each command of Cut, Copy and Paste – these are using the Edit menu, buttons on the standard toolbar and the shortcut keys.</p> <p>Relative cell referencing occurs when a formula is copied and the cell references automatically adjust to the new location on the worksheet. Absolute references means keeping the cell references the same when they are copied or moved. This is achieved by placing a \$ before the part of the cell reference you want to remain constant.</p> <p>Occasionally a formula is created that loops back on itself and cannot produce a valid result. If this occurs then a message box will be displayed. An example of when this may happen is shown on OHT26.</p>

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Three (1.5hrs)				
<ul style="list-style-type: none"> produce graphs / charts use 3-D graphics 	<ul style="list-style-type: none"> 3.5 3.7 	<ul style="list-style-type: none"> explain that charts are an effective way of conveying complex numerical data in a graphical format that is easy to understand describe the different types of charts that can be created in Excel explain the use of the chart Wizard explain the 4 steps needed when creating a chart following the selection of data to be displayed graphically and the selection of the chart Wizard: <ul style="list-style-type: none"> step 1 - accept the defaults given. Demonstrate the use of the <i>Press and hold the view sample</i> button. Click next step 2 – series. How to display the series – columns or rows step 3 - enter the labels and title for the graph step 4 - select where the graph is to be displayed explain how the graph can be moved, if in a worksheet, by selecting and dragging it to its new position 	<ul style="list-style-type: none"> CIE Tutor Support Guide CIE Candidate Support Guide OHTS additional exercises for each Performance Criterion 	

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Three (1.5hrs) Continued				
<ul style="list-style-type: none"> store and retrieve graphs 	<ul style="list-style-type: none"> 3.6 	<ul style="list-style-type: none"> explain that charts can be edited using the same tools that are used to create them explain how the chart properties dialogue box can be used to change the appearance of a chart demonstrate the Chart Type and Chart Options Wizard which allow Chart Wizard pages to be revisited demonstrate how to insert clip art pictures from the gallery demonstrate how to use pictures/graphics from other sources identify the different file extensions which may be found when importing objects from different applications demonstrate how to select and import features from other Applications using Inset menu then Object demonstrate how to copy and paste from other applications demonstrate how to select, resize, move and delete an object 	<ul style="list-style-type: none"> CIE Tutor Support Guide CIE Candidate Support Guide OHTs additional exercises for each Performance Criterion 	<p>When the chart is selected, the Chart toolbar makes these tools available.</p> <p>To manipulate an object it must be selected. When an object is selected, white handles appear around the edge of the object.</p> <p>The manipulation of an object is the same procedure in most Microsoft Applications.</p> <p>Generally file extensions can be identified as follows: Word .doc Excel .xls Pictures .jpeg/.gif There are many more.</p> <p>Other sources of pictures/graphics may include Word Processing packages, ClipArt, scanned images.</p>

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Four (1.2hrs)				
<ul style="list-style-type: none"> format spreadsheets 	<ul style="list-style-type: none"> 3.2 	<ul style="list-style-type: none"> explain that formatting a worksheet enables the data to be presented in an easy to understand form explain that the Formatting toolbar enables basic formats to be applied to the worksheet demonstrate how to resize cells by changing the width and the height demonstrate how data can be justified either by cell, row or column demonstrate the Format cells dialogue box and show candidates how to format cells in some of the main format options and how these can be customised (number, currency, date and time) using Page Set-up demonstrate how Headers and Footers can be created demonstrate how to change the page orientation and margins 	<ul style="list-style-type: none"> CIE Tutor Support Guide CIE Candidate Support Guide OHTs additional exercises for each Performance Criterion 	<p>When data is entered into cells, Excel works out what type of data it is (text, dates, values or formulae) and applies the default format.</p> <p>Using number formatting the format of the cells can be changed to make cells more accurate e.g. applying a currency style.</p> <p>There are five formatting buttons on the toolbar to apply basic formatting.</p> <p>The page set up dialogue box can be used to change the orientation, scale the print to fit one or more pages, adjust margins, create page headers and footers and print or hide the gridlines.</p>

Learning Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Four (1.25hrs) Continued				
<ul style="list-style-type: none"> print a spreadsheet 	<ul style="list-style-type: none"> 3.8 	<ul style="list-style-type: none"> describe how Print Preview can be used to check before printing demonstrate the ways that Print Preview can be used demonstrate how to set a print area to print a selected section of the spreadsheet explain how the whole work sheet can be printed by clicking on the Print button demonstrate how to display the print dialogue box explaining all the options available explain how a print range can be restricted explain that if a worksheet prints on more than one page then the column and row headings can be displayed on all pages demonstrate the dashed lines on a page to show where the page breaks will appear demonstrate how to change the page breaks 		<p>The print preview window is used to check the overall layout of a document before it is printed. It accurately reflects what will be printed on the paper.</p> <p>The print preview facility works on WYSIWYG: What You See Is What You Get.</p> <p>It is an example of good practice to save the data prior to printing.</p> <p>Dashed blue lines indicate automatic page breaks Solid blue lines indicate manually created page breaks.</p>

Resources

Online Resources

There are many sites available which cover this topic. Useful sites include:

<http://www.baycongroup.com/excel.htm>

This site offers a very good tutorial package for Excel. The site has several tutorials which build in difficulty. The site is clearly laid out.

<http://www.microsoft.com/office/excel/default.asp>

The official Microsoft site for Excel. There are plenty of hints and tips on this site with useful screen shots. This site can be accessed in different languages by visiting <http://www.microsoft.com/worldwide> and selecting the appropriate country.

<http://www.tutorialbox.com/tutors/off2000/excel>

A free site with tutorials on all Microsoft applications. Useful for all students from beginner to the more experienced.

<http://www.cie.org.uk/CIE/WebSite/UCLESData/Documents/Career%20%26%20Skills%20Awards/IT/Resources/glossary.pdf>

A Glossary of Terms is available on the CIE website, which is useful for this module.

Books

McBride, P K *Skills Award in Information Technology: Standard Level* (Edition 2003)
Cambridge University Press ISBN 0521525284

British Computer Society *A Glossary of Computing Terms* (Edition 1998)
Longman ISBN 0582369673

Other Resources

The built-in Excel Help files have many hints and tips with a search facility. Also available is the Windows demonstration presentation, which can be used to give an introduction to the Windows operating system.