



Level 5 Diploma in Information Technology (103)
127 Credits



Unit: Microsoft Excel	Guided Learning Hours: 220
Paper No.: 4	Number of Credits: 22
Prerequisites: Familiarity with Windows, mouse and keyboarding skills.	Corequisites: A pass or higher in Certificate in Information Systems.
<p>Aim: Excel isn't just for financial professionals; this spreadsheet and analysis program offers intuitive tools that make it easy to access, connect, and analyse critical data regardless of learners' profession. Excel is a spreadsheet program that lets users capture and analyse data. This unit is designed to give learners the skills they need to create spreadsheets in order to track financial, sales, inventory, and personal data. Learners learn how to create basic formulas, and copy, move, and paste data while making the sheet look attractive. Learners also learn how to create, modify charts, and save data. Techniques to produce reliable Excel workbooks are also covered, including how to display, format, edit existing worksheets and develop new ones and how to make the most of Excel by creating formulas to analyse data quickly.</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
Special Requirements: Significant hands-on labs using Microsoft Excel.	
<p>Intended Learning Outcomes:</p> <p>1 Why Excel is a very important tool; how to enter data, save the workbook and print worksheets.</p> <p>2 Enhancing worksheets, using colour, borders, textboxes and graphic features; aligning data, applying character formats, formatting rows, columns and worksheets.</p>	<p>Assessment Criteria:</p> <p>1.1 Demonstrate how to start Excel, open a workbook, move around a worksheet using the mouse and arrow keys</p> <p>1.2 Demonstrate navigating using GOTO key (F5); adding two numbers and creating fill series</p> <p>1.3 Illustrate how to select a block of cells, type into worksheet cells text, values, formulas, and functions, edit and clear cell entries</p> <p>1.4 Define how to save a workbook, print a worksheet, print worksheet formulas and exit Excel.</p> <p>1.5 Define the differences between a workbook and a worksheet.</p> <p>1.6 Illustrate how the rows and columns in a worksheet are labelled.</p> <p>2.1 Define how to create formulas containing cell references and mathematical operators</p> <p>2.2 Demonstrate how to write functions including Sum, Average, Max, and Min</p> <p>2.3 Demonstrate how use Excel's AutoSum feature to automatically write Sum functions</p> <p>2.4 Illustrate several ways of copying formulas from one cell to many other cells</p> <p>2.5 Differentiate between absolute, mixed, and relative cell reference</p> <p>2.6 Identify how to adjust column widths, set a print area and move text, values and formulas</p> <p>2.7 Demonstrate how to insert and delete</p>

<p>3 Absolute, relative cell referencing, writing formulas, using functions, copying, moving cell contents, formatting cells, analysing important concepts; good worksheet planning and documenting. .</p> <p>4 Different types of charts, organising data, the type of charts best suited for specific situations and formatting charts.</p> <p>5 Designing a workbook using Excel's sorting, filtering and grouping features including how to create pivot tables; pivot charts, freezing rows and columns and using folders for workbook storage.</p>	<p>rows and columns</p> <p>2.8 Demonstrate how to format cells</p> <p>2.9 Illustrate how to create cell comments</p> <p>2.10 Be able to group worksheets and design exact samples for each page</p> <p>2.11 Be able to use the <i>Pastelink</i> command</p> <p>3.1 Identify how to left, center and right-align text</p> <p>3.2 Demonstrate how to apply currency and accounting formats to numbers</p> <p>3.3 Demonstrate how apply boldface, italics, and underlines to cells</p> <p>3.4 Define how to clear all formatting from selected cells</p> <p>3.5 Illustrate how to modify column widths and row heights</p> <p>3.6 Demonstrate how to hide and reveal rows and columns</p> <p>3.7 Evaluate how to remove worksheet gridlines</p> <p>3.8 Be able to use the Fill Series</p> <p>3.9 Be able to use the Format Cell Alignment feature</p> <p>3.10 Be able to use other Formal Cell features</p> <p>4.1 Define a data series and data categories</p> <p>4.2 Demonstrate how to create simple embedded chart and a chart sheet</p> <p>4.3 Demonstrate how to modify an existing chart by revising data, altering chart text, and labelling data</p> <p>4.4 Illustrate how to use colour and patterns to embellish a chart</p> <p>4.5 Define how to add a new data series to a chart</p> <p>4.6 Demonstrate how to alter a chart type and create a three dimensional chart</p> <p>4.7 Identify how to create a pie chart with a title, exploding slice, labels, and floating text</p> <p>4.8 Identify how to add texture to a chart, delete embedded charts and chart sheets.</p> <p>4.9 Demonstrate creating sparklines.</p> <p>5.1 Demonstrate how to create and maintain a list</p> <p>5.2 Identify how to freeze rows and columns</p> <p>5.3 Demonstrate how to sort a list on multiple sort keys</p> <p>5.4 Demonstrate how to enter, search for, modify, and delete records in a list with a data form</p> <p>5.5 Define how to group and outline structured data</p> <p>5.6 Illustrate how to create outlines and subtotals</p> <p>5.7 Demonstrate how to create and apply conditional formatting</p> <p>5.8 Demonstrate how to create filters and</p>
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<p>6 Providing data validation, using the logical if function and writing the index function.</p>	<p>advanced filters with AutoFilter</p> <p>5.9 Identify how to use worksheet labels and names in formulas</p> <p>5.10 Define how to create a pivot table and pivot chart</p> <p>5.11 Define how to create and use folders for workbook storage.</p> <p>6.1 Identify how to develop separate assumptions and output sections of a worksheet</p> <p>6.2 Demonstrate how to use Insert Function to help write worksheet functions</p> <p>6.3 Illustrate how to provide data validation for selected worksheet cells</p> <p>6.4 Explain how to define and use names in functions in place of cell references</p> <p>6.5 Explain how to investigate the logical function IF</p> <p>6.6 Demonstrate how to write the index function VLOOKUP</p> <p>6.7 Illustrate how to write financial functions including PV, PMT, PPMT, and IPMT</p> <p>6.8 Identify how to write and apply the NOW date function.</p> <p>6.9 Demonstrate how to use DSUM, DAVERAGE, DMAX, DMIN, and DCOUNT functions.</p> <p>6.10 Demonstrate the implementation of the AutoFilter and Advanced Filter commands.</p> <p>6.11 Identify how to use the Subtotals command.</p>
<p>7 Creating a workbook template, renaming, colour worksheet tabs; grouping, inserting, deleting and repositioning worksheets including using three-dimensional formulas.</p>	<p>7.1 Demonstrate how to design a multiple-sheet workbook and justify when it is useful</p> <p>7.2 Illustrate how to set the default number of worksheets</p> <p>7.3 Identify how to insert, delete, and reposition worksheets in a workbook</p> <p>7.4 Define how to create a workbook template</p> <p>7.5 Demonstrate how to rename a worksheet tab and colour it</p> <p>7.6 Illustrate how to establish worksheet page settings</p> <p>7.7 Identify how to group worksheets in a workbook and enter data in multiple sheets at once</p> <p>7.8 Identify how to consolidate and summarise data using three-dimensional formulas</p> <p>7.9 Identify how to use cell Watch</p> <p>7.10 Analyse how to reference cells in other workbooks using link formulas</p> <p>7.11 Demonstrate how to maintain and update linked workbooks.</p> <p>8.1 Identify how to use the Audit toolbar</p>

<p>8 Protecting a workbook, using the auditing toolbar, sharing a workbook with others and publishing workbooks to the web.</p>	<p>8.2 Identify how to locate a cell's precedent cells and dependent cells</p> <p>8.3 Demonstrate how to display and clear tracer arrows</p> <p>8.4 Identify how to locate and correct errors using audit tools</p> <p>8.5 Demonstrate how to share a workbook with other users</p> <p>8.6 Define how to insert comments and review others' comments</p> <p>8.7 Define how to track, accept, and reject changes made to a workbook</p> <p>8.8 Explain how to merge multiple versions of the same workbook</p> <p>8.9 Demonstrate how to protect workbooks and worksheets.</p> <p>8.10 Demonstrate how to hide worksheets.</p> <p>8.11 Demonstrate how to publish workbooks on the Web.</p>
<p>9 Analysing the cost given various estimated rates of interest, creating, using one-variable data tables, excel scenarios and scenario reports.</p>	<p>9.1 Identify the relationships between volume, cost, and profit</p> <p>9.2 Explore how to use break-even analysis to determine production levels for profitability</p> <p>9.3 Explain how to create and use one-variable and two-variable data tables</p> <p>9.4 Evaluate how to create charts based on one-variable and two-variable data tables</p> <p>9.5 Demonstrate how to create Excel scenarios</p> <p>9.6 Demonstrate how to manage Excel scenarios with the Scenario Manager</p> <p>9.7 Define how to view, add, edit, and delete scenarios</p> <p>9.8 Identify how to create a scenario report</p>
<p>10 Using Excel's solver to unravel complex tasks including creating goal-seeking reports (What-If-Analysis).</p>	<p>10.1 Define how to use Excel's goal-seeking tools and concisely identify a goal-seeking objective</p> <p>10.2 Identify how to implement goal-seeking by using a graph</p> <p>10.3 Illustrate how to install the Excel Solver tool</p> <p>10.4 Demonstrate how to use Excel's Solver to unravel more complex problems</p> <p>10.5 Define how to create Solver answer, limit, and sensitivity reports.</p>
<p>11 Importing text files into Excel, copying a worksheet from one workbook to another; using Microsoft Query to create a query to filter, sorting, retrieving data records and writing aggregate queries to summarise imported data.</p>	<p>11.1 Identify how to import text files into Excel with the Text Import Wizard</p> <p>11.2 Demonstrate how to move a worksheet from one workbook to another one</p> <p>11.3 Demonstrate how to import database information into Excel using the Query Wizard</p> <p>11.4 Illustrate how to use Microsoft Query to create a query to filter, sort, and retrieve database records</p> <p>11.5 Illustrate how to write a database query</p>

<p>12 Understand the Visual Basic editor, how to save macros, setting macro security levels, and creating an automatically executing macro.</p>	<p>that joins two related database tables and returns values from each table</p> <p>11.6 Identify how to edit and save database queries</p> <p>11.7 Describe how to write an aggregate query to summarise imported data</p> <p>12.1 Illustrate how to record a macro instruction</p> <p>12.2 Identify how to examine and use the Visual Basic Editor</p> <p>12.3 Identify how to run macro instructions using a dialog box and a command button</p> <p>12.4 Illustrate how to save a macro in your Personal Macro Workbook</p> <p>12.5 Identify how to create and modify Visual Basic Code in the Visual Basic Editor</p> <p>12.6 Identify how to use Visual Basic objects, methods, properties, and variables</p> <p>12.7 Define how to create a macro that automatically executes when you open a workbook</p> <p>12.8 Illustrate how to hide the Personal Macro Workbook</p> <p>12.9 Illustrate how to create custom functions</p> <p>12.10 Identify how to protect a worksheet to preserve its integrity.</p>
<p>Methods of Evaluation: A 2½ hour written examination paper with five essay questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Excel with a weighting of 100%.</p>	

**Recommended Learning Resources:
Microsoft Excel**

<p>Text Books</p>	<ul style="list-style-type: none"> • Microsoft® Office Excel® Step by Step by Curtis Frye. ISBN-10: 0735615187 • New Perspectives on Microsoft Office Excel 2007, Comprehensive by June Jamrich Parsons Dan Oja, Roy Ageloff and Patrick Carey. ISBN-10: 1423905857 • Microsoft Office Excel Inside Out by Mark Dodge and Craig Stinson. ISBN-10: 073562321X • Microsoft Office Excel Illustrated Complete by Elizabeth Eisner Reding and Lynn Wermers. ISBN-10: 1423905229
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>Microsoft Excel</p>