

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**Cambridge International Diploma in ICT  
Standard Level**

Scheme of Work

5196  
Business Charts  
Optional Module



UNIVERSITY *of* CAMBRIDGE  
International Examinations

## Introduction

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This Optional Module is about preparing a variety of charts, making changes to the default formatting to enhance or emphasise certain parts of the information.

### What is assessed in this Module?

- importing data - extracting data from a large set
- entering data with 100% accuracy
- creating charts e.g. Bar, Pie and Line
- adding axis labels
- adding legend
- adjusting axis scale
- adding a second axis
- emphasising parts of a chart e.g. shading, patterns, segment
- printing charts

### Tutor Preparation Required to Deliver this Module

You will need:

- prepared files for the students to load and use as source data for chart production
- raw data for students to create charts
- documentation showing what the students have to produce
- these files and documents should incorporate appropriate data to allow the students to create the various charts.

### Underpinning Knowledge

It is necessary to discuss with the students the different types of charts that are used to give a clear image of data. You may wish to discuss why, and when you would use:

- a bar chart
- a pie chart
- a line graph

### General Principles and Procedures

You should produce notes for this session to include:

- import data from a large data set
- creating the different types of graphs
- modifying the structure of a graph after production
- adding a second Y-axis
- showing different label options e.g. pie chart labelled segments with text and/or value

## Scheme of Work

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
<b>Session Plan One</b>				
<ul style="list-style-type: none"> <li>different types of charts</li> <li>how data sets are used to create charts</li> <li>the language of charts</li> <li>how to import data</li> <li>the need for accurate data entry</li> <li>how to select data sets</li> <li>how to create bar charts from data sets</li> </ul>	1.1.1 1.2.1 2.1.1 2.1.2 2.1.3 2.1.4 2.1.5	<ul style="list-style-type: none"> <li>discuss the use of charts to display numeric data</li> <li>import and look at various sets of data to decide how it could best be displayed in chart form.</li> <li>discuss the language of charts, Titles, legends, data sets, category axis, value axis</li> <li>extract data from a data set to create a bar chart.</li> <li>ensure labels and legends are in place if requested.</li> <li>save and print</li> </ul>	<ul style="list-style-type: none"> <li>various instruction sheets and handouts</li> <li>large sheets of paper and marker</li> <li>a number of pre designed data sets in different formats</li> <li>prepared data sets for importing</li> <li>prepared data sets for manual entry</li> <li>prepared data files for importing</li> </ul>	<ul style="list-style-type: none"> <li>students should be introduced to different file types which should include generic and software specific formats, e.g. CSV, XLS</li> <li>all standard terms should be included like: title, legend, data sets, category axis, value axis, segments</li> </ul>
<b>Session Plan Two</b>				
<ul style="list-style-type: none"> <li>how to create pie charts from data sets</li> <li>how to manipulate pie charts to emphasise data</li> </ul>	2.2.1 2.2.2 2.2.3 2.2.4 2.2.5	<ul style="list-style-type: none"> <li>extract data from a data set to create a pie chart</li> <li>ensure labels and legends are in place if requested</li> <li>manipulate pie charts to emphasise data (e.g. exploded segments)</li> <li>save and print</li> </ul>	<ul style="list-style-type: none"> <li>prepared data sets for manual entry</li> <li>prepared data files for importing</li> </ul>	<ul style="list-style-type: none"> <li>cover how segments can be displayed with labels and % values, as exploded segments, etc.</li> </ul>

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
<b>Session Plan Three</b>				
<ul style="list-style-type: none"> <li>how to produce a variety of line graphs from data sets</li> <li>add an extra data set</li> <li>set a second y (value) axis</li> <li>adjust the axis range to display min and max values</li> <li>why setting the axis range (min and max) can give the chart a different appearance</li> </ul>	2.3.1 2.3.2 2.3.3 2.3.4 2.3.5 2.3.6 2.3.7	<ul style="list-style-type: none"> <li>extract data from a data set to create a line graph</li> <li>ensure labels and legends are in place if requested</li> <li>adding additional data set/s to imported data files</li> <li>redefining data sets to include new data</li> <li>adding a second value axis to an existing chart</li> <li>adjust the axis range (min &amp; max)</li> <li>save and print</li> </ul>	<ul style="list-style-type: none"> <li>prepared data sets for manual entry</li> <li>prepared data files for importing</li> <li>exercises defining ranges of maximum and minimum values for the axis</li> <li>exercises with pre drawn graphs to enable the adding of additional data sets and the adding of a second value axis</li> <li>exercises designed to show changing the axis values to show the changes in appearance of the chart</li> </ul>	
<b>Session Plan Four</b>				
<ul style="list-style-type: none"> <li>search data in order to extract data sets based upon the searched criterion</li> <li>extract data series which do not sit together within the original worksheet</li> <li>cover all the chart options to produce a variety of charts with the same data set</li> </ul>	all	<ul style="list-style-type: none"> <li>extract data using searched criterion to create data sets</li> <li>extract data series which are remote from each other within the worksheet</li> <li>produce bar charts</li> <li>produce pie charts</li> <li>produce line graphs</li> <li>ensure all data is legible when printed on black and white printers</li> <li>save and print different types of charts</li> </ul>	<ul style="list-style-type: none"> <li>prepared data files for importing</li> <li>prepared data files for importing - a full set of data that each type of chart can be produced from needs to be available</li> </ul>	

Session Plan Five				
<ul style="list-style-type: none"> <li>undertake Business Charts specimen paper</li> </ul>	all	<ul style="list-style-type: none"> <li>Business Charts specimen paper</li> </ul>		
Session Plan 6				
		<ul style="list-style-type: none"> <li>practice test debrief session</li> <li>discussion of answers</li> </ul>		
Session Plan Seven				
<ul style="list-style-type: none"> <li>undertake Business Charts Module Assessment</li> </ul>		<ul style="list-style-type: none"> <li>Business Charts Assessment</li> </ul>		
Extension exercise				
<ul style="list-style-type: none"> <li>look at some internet sites for ideas from software companies on the use of software in industry.</li> </ul>			<ul style="list-style-type: none"> <li>internet or intranet facilities.</li> </ul>	