

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**Cambridge International Diploma in ICT  
Advanced Level**

Scheme of Work

5201  
Core Module



UNIVERSITY *of* CAMBRIDGE  
International Examinations

## Core Module

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### Communication

This section of the Core Module involves the use of the Internet and email to gather and communicate information.

#### What is assessed in this section of the Core Module?

Use of email to:

- receive messages
- send messages and files using facilities such as reply, forward, copies, create new messages
- receive files as attachments and save them
- send files as attachments

Use of the Internet to:

- locate information from a specified website
- search for information
- download and save information

#### Tutor Preparation Required to Deliver this Module

You will need to:

- documentation for activities to be undertaken
- to set up email addresses, and prepare email message to be sent to the students
- to check connection to websites used and location of files for download by candidates
- to know what is on any specified website
- to ensure that the file storage area has sufficient disk space for storing the necessary files
- to provide instructions for saving files to and locating files from the candidate's file storage area
- to be aware of any Internet search results set for the students
- to ensure that software is available for opening attachments
- appropriate documentation from 'General Principles and Procedures' below

#### Underpinning Knowledge

How to:

- log-in to the email system
- save files and attach files to messages to be sent
- save attachments from messages received
- log-in to the Internet
- locate specified websites
- search for specified information
- download and save files from a specified site
- open saved files using appropriate software packages

## **General Principles and Procedures**

In preparation for this module you could produce notes on the following topics:

- general information detailing the use of the Internet
- the procedure for log-in
- the implications of security on the Internet, including giving personal details (such as bank and credit card details)
- an overview of common file types such as DOC, PDF, TXT, CSV, JPG, GIF, HTML, ZIP and how to load these into the appropriate software package
- importing different file types into common software packages
- downloading information from the Internet

## **Data Management**

This section of the Core Module consists of using word processing, spreadsheet and database applications in an integrated fashion to manage and present information. It also deals with the use of advanced formatting facilities to present information appropriately.

### **What is assessed in this section of the Core Module?**

Entering data from different sources:

- load data from existing files
- key in text, number and dates
- import, manipulate and position images
- download and position data from Internet

Document format and layout:

- set up a page format
- create margins - top, bottom, left, right
- create and use styles
- create headers and footers
- use automated paragraph numbering
- create and manipulate a table
- control pages, using column and page breaks

Re-organise data to meet needs:

- sort data (ascending, descending) on more than one field
- extract subsets of data (AND/OR, data range, wildcard)

Perform calculations on numeric data:

- use simple arithmetic operators
- use absolute cell references
- use numeric functions (sum/average)
- use conditional functions (if/lookup)

Present numeric data in graphical form:

- produce graphs (pie, bar, line, comparative)
- include titles, labels, legend
- select from within a data range
- control y-axis range
- place and manipulate chart

Integrate data from several sources:

- combine text, numeric and image data in one document
- ensure consistency of display
- use repagination to ensure page breaks are positioned appropriately

Output data:

- save and print document
- print directory/folder structure

### **Tutor Preparation Required to Deliver this Module**

You will need:

- documentation for activities to be undertaken
- instructions for saving and printing documents
- prepared files for the students to load and/or import
- these should include the following file types:
  - word processing
  - spreadsheet and database
  - graphic/image
  - appropriate documentation from 'General Principles and Procedures' below

### **Underpinning Knowledge**

- the relationship between different applications
- purpose of different applications types
- how to enter, insert, delete and move data
- reason for using styles
- reason to control page break/numbering/orientation
- impact of use of graphics, colour and text
- use of different graph types

### **General Principles and Procedures**

In preparation for this module you could produce notes on the following topics:

- file naming conventions
- how to obtain printouts of directory/folder structure
- how to integrate elements from different software applications into one document
- setting styles within documents
- text and number formatting instructions
- using paragraph numbering
- presenting data in tables
- sorting and organising data
- performing numeric calculations including functions
- producing different graph types
- bringing text, image and numeric data together in one document
- choosing a printer, starting and cancelling a printout
- accessing, and function of, a print queue

## **Systems Management**

This section of the Core Module consists of using the operating system or application facilities to copy, delete or move files. It also deals with the organisation of files into folders, and the production of file listings.

### **What is assessed in this section of the Core Module?**

- saving both new and existing data files
- deleting specified file/s
- copying specified file/s
- moving and relocating file/s as specified
- setting up directories/folders to specified directory structure/s

### **Tutor Preparation Required to Deliver this Module**

You will need:

- access to relevant disk drives for storage of files
- ensure that there is adequate disk space for file storage
- set up any directories/folders as required
- documentation for exercise/s to be undertaken
- appropriate documentation from 'General Principles and Procedures' below

### **Underpinning Knowledge**

- reason for creating directories/folders
- awareness of the hierarchical structure of directories/folders
- basic file management
- directory/folder and file naming conventions
- how to check file sizes, and available storage space

### **General Principles and Procedures**

In preparation for this module you could produce notes on the following topics:

- the convention for designation of drives such as A: Floppy, C: Main hard disk, D: CD ROM, network drives, and understand which are available for storage of files
- common storage capacities for drives, KB, MB, GB
- checking storage capacities of drives, in particular floppy disks
- formatting a disk
- creating and organising directories/folders
- details of the hierarchical structure of directories/folders
- making backup copies of files

## Scheme of Work

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
<b>Communication/Systems Management</b>				
<b>Session Plan One</b>				
<ul style="list-style-type: none"> <li>the language and concepts used in electronic communication.</li> <li>to read an email</li> <li>to send an email</li> </ul>	1.1.1 1.2.1	<ul style="list-style-type: none"> <li>examine sample messages (either on line or hard copy) to become familiar with the structure of an email and language used</li> <li>open previously sent email messages</li> <li>reply to and forward email messages to tutor, and other students, using Cc and Bcc</li> </ul>	<ul style="list-style-type: none"> <li>global email with individual addresses for each student</li> <li>prepared and sent email messages</li> <li>email messages sent to students to which they can reply</li> <li>email addresses to send mail to</li> </ul>	<ul style="list-style-type: none"> <li>language includes compose, mail box, address book, address line, subject line, carbon copy, blind carbon copy, address, send, reply, forward</li> </ul>
<b>Session Plan Two</b>				
<ul style="list-style-type: none"> <li>transfer file attachments of common file formats</li> <li>to send a file from storage</li> <li>to receive a file and save to storage area</li> <li>open file attachments</li> </ul>	1.3.1 1.4.1 10.1.1	<ul style="list-style-type: none"> <li>send data as file attachments from previously stored files</li> <li>transfer file attachments into storage</li> <li>open file attachments</li> </ul>	<ul style="list-style-type: none"> <li>files held within storage areas prepared to be sent as attachments</li> <li>prepared and sent email messages with file attachments in a variety of formats</li> <li>instructions on saving and retrieving files</li> </ul>	<ul style="list-style-type: none"> <li>file attachment formats to include TXT, RTF, CSV, DOC, PDF, GIF, JPG and others commonly used within the centre.</li> <li>check the maximum size for attachments permitted by email provider</li> <li>provide instructions on how to save and retrieve files, and how to access the file storage area</li> </ul>

Session Plan Three				
<ul style="list-style-type: none"> <li>to locate information from a website using a browser</li> </ul>	2.1.1	<ul style="list-style-type: none"> <li>locate pre-selected material from a website using a given URL</li> <li>use the bookmarking facility in the browser</li> </ul>	<ul style="list-style-type: none"> <li>Internet/Intranet access with a web browser</li> <li>prepared list of suitable URL's which have been carefully checked</li> </ul>	<ul style="list-style-type: none"> <li>an explanation of data protection and copyright issues should be included within this activity, both in general terms as well as those specific to your country/region</li> </ul>
Session Plan Four				
<ul style="list-style-type: none"> <li>to locate information from a website using a search engine and by using both simple and refined searches</li> </ul>	2.2.1	<ul style="list-style-type: none"> <li>locate information using different types of search engines</li> <li>begin with a simple search, and refine it to minimise the number of results returned</li> <li>print out the main pages of useful sites found</li> </ul>	<ul style="list-style-type: none"> <li>prepared search criteria which have been carefully checked</li> </ul>	<ul style="list-style-type: none"> <li>discussion about filtering techniques will be needed – depending upon the search engine and the complexity of its advanced search facilities</li> <li>it is recommended that the website/s used for activities and assignments can be located through at least two of the search engines</li> </ul>
Session Plan Five				
<ul style="list-style-type: none"> <li>to download and save specified information to storage area</li> </ul>	2.3.1	<ul style="list-style-type: none"> <li>download specified material from a website</li> </ul>	<ul style="list-style-type: none"> <li>prepared list of suitable URLs which have been carefully checked or carefully selected search criteria</li> </ul>	<ul style="list-style-type: none"> <li>this activity can be from a given URL or through a search engine</li> </ul>
Session Plan Six and Seven				
<ul style="list-style-type: none"> <li>to locate information from a website using a search engine</li> </ul>	2.2.1	<ul style="list-style-type: none"> <li>locate and retrieve information relating to a specific topic</li> <li>produce a report</li> </ul>	<ul style="list-style-type: none"> <li>exercise 2 could be used which involves searching for information on a particular topic, and producing a report</li> </ul>	<ul style="list-style-type: none"> <li>provide documentation for exercise 2</li> <li>if the report is produced without formatting, it could be used in the next session, where it can be formatted using styles etc.</li> </ul>

Session Plan Eight				
<ul style="list-style-type: none"> <li>• set up a page format</li> <li>• create styles to a given specification</li> <li>• create headers and footers as specified</li> <li>• control pages</li> <li>• save and print the document</li> </ul>	4.1.1 4.1.2 4.1.3 4.1.4 4.1.5 4.2.1 4.3.1 4.6.1 9.1.1 9.1.2	<ul style="list-style-type: none"> <li>• print the unformatted version of the report</li> <li>• add the specified formatting to the report</li> <li>• save and print the final version of the report</li> </ul>	<ul style="list-style-type: none"> <li>• the unformatted report from the previous exercise could be used</li> </ul>	<ul style="list-style-type: none"> <li>• provide instructions on how to format, save and print out the report</li> </ul>
Session Plan Nine and Ten				
<ul style="list-style-type: none"> <li>• key in data</li> <li>• save and print document</li> <li>• import image</li> <li>• include graphic image downloaded from the Internet</li> <li>• set up a page format</li> <li>• apply styles</li> <li>• use headers and footers</li> <li>• automate paragraph numbering</li> <li>• control pages</li> <li>• output data</li> </ul>	3.1.1 3.2.1 3.3.1 3.3.2 3.4.1 4.1.1 4.1.2 4.1.3 4.1.4 4.1.5 4.2.1 4.3.1 4.4.1 4.4.2 4.6.1 9.1.1 9.1.2 10.1.1	<ul style="list-style-type: none"> <li>• type in text as specified in the documentation provided</li> <li>• print and save</li> <li>• apply formatting as specified</li> <li>• search for, and retrieve, a graphic image from the internet</li> <li>• insert the graphic, and manipulate it and the text surrounding it, as specified</li> <li>• save and print document</li> </ul>	<ul style="list-style-type: none"> <li>• draft and final documentation detailing raw text to be input</li> <li>• guidance on the type of graphics file to be located using the Internet, and instructions for inserting, positioning and manipulating it in the document</li> <li>• instructions for document format and layout</li> <li>• instructions for printing and saving documents</li> </ul>	<ul style="list-style-type: none"> <li>• ensure that text to be input can be assigned headings, subheadings and bulleted lists</li> <li>• ensure that the document is structured so that a graphic, which should be acquired from the Internet, can be inserted into the text to enable text wrapping to be applied</li> <li>• document format could include page size, orientation, and numbering; margins, columns, headers and footers and page/column breaks. Styles could include numbered list/s, lettered list/s and bulleted list/s</li> </ul>



Session Plan Eleven				
<ul style="list-style-type: none"> <li>• set up directories/folders as specified</li> <li>• delete data</li> <li>• copy data</li> <li>• move data</li> </ul>	10.2.1 10.3.1 10.4.1 10.5.1	<ul style="list-style-type: none"> <li>• create directories</li> <li>• create subdirectories</li> <li>• organise files into relevant directories, as specified</li> <li>• delete, copy and move files as specified</li> </ul>	<ul style="list-style-type: none"> <li>• access to various types of files which can be organised into directories/folders and subdirectories/ folders</li> <li>• instructions for the creation of directories/folders and subdirectories/folders within them, to enable the efficient organisation of files</li> <li>• details of which files are to be copied and moved, and into which directories/folders and subdirectories/folders</li> <li>• instructions for printing out specified directory/folder structure</li> </ul>	<ul style="list-style-type: none"> <li>• guidance on the following topics could be provided to aid understanding:               <ul style="list-style-type: none"> <li>- the convention for designation of drives such as A: Floppy, C: Main hard disk, D: CD ROM, network drives, and which are available for storage of files</li> <li>- common storage capacities for drives, KB, MB, GB</li> <li>- how to check storage capacities of drives, in particular floppy disks</li> <li>- how to format a disk</li> <li>- making backup copies of files</li> </ul> </li> <li>• instructions should be provided on creating and organising directories/folders, and subdirectories/ folders within them</li> <li>• describe the hierarchical structure of directories/folders</li> <li>• provide guidance on obtaining printouts of directory/folder structure</li> </ul>

Session Plan Twelve, Thirteen and Fourteen				
<ul style="list-style-type: none"> <li>• key in text</li> <li>• save data</li> <li>• create table and manipulate as specified</li> <li>• key in data</li> <li>• enter formulae using arithmetic operations and numeric functions. Include use of absolute reference/s</li> <li>• sort data</li> <li>• select subsets of data using more than one criterion</li> <li>• save data</li> </ul>	3.1.1 3.2.1 3.3.1 4.5.1 4.5.2 5.1.1 5.2.1 5.2.2 6.1.1 6.1.2 6.1.3 6.1.4 10.1.1	<ul style="list-style-type: none"> <li>• collect data using a brainstorming session as specified in exercise three</li> <li>• produce a text file based on the outcome of the session, and save</li> <li>• produce required tables in a database/spreadsheet and add around 30 records</li> <li>• perform necessary calculations</li> <li>• sort and select data to be extracted and used in the text file</li> <li>• save the file</li> </ul>	<ul style="list-style-type: none"> <li>• exercise 3 documentation</li> <li>• instructions for brainstorming session for collection of data</li> <li>• instructions on calculations to be performed, using arithmetic operations and numeric functions, either of which make use of one absolute reference. Include a conditional function</li> <li>• details of how data is to be sorted and extracted from the database/spreadsheet, using more than one criterion (numeric, text or boolean)</li> </ul>	<ul style="list-style-type: none"> <li>• exercise 3 could be used, which involves the students in a brainstorming session to discuss and decide on data to be input into the database/spreadsheet, and specifications for the format of tables</li> <li>• a text file should be produced, to provide details of the outcome of the session, and should ensure that text is included which can be assigned the following styles: Heading, Subhead, Body Text and Bullets</li> </ul>

Session Plan Fifteen, Sixteen and Seventeen				
<ul style="list-style-type: none"> <li>• set up a page format</li> <li>• use styles</li> <li>• use headers and footers</li> <li>• automate paragraph numbering</li> <li>• control pages</li> <li>• load data from an existing file</li> <li>• present numeric data as graph or chart</li> <li>• import image</li> <li>• combine text, image and numeric data into one document</li> <li>• save and print document</li> </ul>	3.1.1 3.3.1 3.3.2 4.1.1 4.1.2 4.1.3 4.1.4 4.1.5 4.2.1 4.3.1 4.4.1 4.6.1 7.1.1 7.1.2 7.1.3 7.1.4 8.1.1 8.1.2 9.1.1 9.1.2 10.1.1	<ul style="list-style-type: none"> <li>• open the text file, and apply specified document format and styles</li> <li>• insert the prepared table from the database/spreadsheet into the text file</li> <li>• produce various graphs from the data. Insert a graphic/clipart into the text file and resize</li> <li>• save and print the draft and final documents</li> </ul>	<ul style="list-style-type: none"> <li>• text file and database/spreadsheet file</li> <li>• instructions for document format and styles to be applied to the text document</li> <li>• specifications for types of graphs to be produced</li> <li>• provide graphic/clipart to be inserted</li> </ul>	<ul style="list-style-type: none"> <li>• exercise 4 could be used, which continues on from exercise three</li> <li>• document format could include page size, orientation, and numbering; margins, columns, headers and footers and page/column breaks</li> <li>• styles to include bulleted list/s</li> <li>• provide instructions for producing various graph/chart types, inserting legend, labels and titles. Specify details for positioning and manipulating graphs/charts. Include instructions for selecting specified data</li> <li>• provide details for positioning and manipulation of inserted graphic/clipart</li> <li>• include instructions for saving and printing the draft and final documents</li> </ul>
Session Plan Eighteen				
<ul style="list-style-type: none"> <li>• undertake Advanced Core Module Specimen Test</li> </ul>	all	<ul style="list-style-type: none"> <li>• Core Module Test</li> </ul>		
Session Plan 19				
		<ul style="list-style-type: none"> <li>• practise test debrief session: discussion of answers</li> </ul>		
Session Plan 20				
<ul style="list-style-type: none"> <li>• Undertake Core Module Assessment</li> </ul>	All	<ul style="list-style-type: none"> <li>• Core Module Assessment</li> </ul>		