UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International Diploma in Business
Advanced Level

Scheme of Work

5201
Information and Communications Technology (ICT)
Optional Module

UNIVERSITY *of* **CAMBRIDGE**
International Examinations

Optional Module

Communication

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

What is assessed in this section of the 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 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 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 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 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
Communication/Systems Management				
Session Plan One				
• the language and concepts used in electronic communication. • to read an email • to send an email	1.1.1 1.2.1	• examine sample messages (either on line or hard copy) to become familiar with the structure of an email and language used • open previously sent email messages • reply to and forward email messages to tutor, and other students, using Cc and Bcc	• global email with individual addresses for each student • prepared and sent email messages • email messages sent to students to which they can reply • email addresses to send mail to	• language includes compose, mail box, address book, address line, subject line, carbon copy, blind carbon copy, address, send, reply, forward
Session Plan Two				
• transfer file attachments of common file formats • to send a file from storage • to receive a file and save to storage area • open file attachments	1.3.1 1.4.1 10.1.1	• send data as file attachments from previously stored files • transfer file attachments into storage • open file attachments	• files held within storage areas prepared to be sent as attachments • prepared and sent email messages with file attachments in a variety of formats • instructions on saving and retrieving files	• file attachment formats to include TXT, RTF, CSV, DOC, PDF, GIF, JPG and others commonly used within the centre. • check the maximum size for attachments permitted by email provider • provide instructions on how to save and retrieve files, and how to access the file storage area

Session Plan Three				
• to locate information from a website using a browser	2.1.1	• locate pre-selected material from a website using a given URL • use the bookmarking facility in the browser	• Internet/Intranet access with a web browser • prepared list of suitable URL's which have been carefully checked	• 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
Session Plan Four				
• to locate information from a website using a search engine and by using both simple and refined searches	2.2.1	• locate information using different types of search engines • begin with a simple search, and refine it to minimise the number of results returned • print out the main pages of useful sites found	• prepared search criteria which have been carefully checked	• discussion about filtering techniques will be needed – depending upon the search engine and the complexity of its advanced search facilities • it is recommended that the website/s used for activities and assignments can be located through at least two of the search engines
Session Plan Five				
• to download and save specified information to storage area	2.3.1	• download specified material from a website	• prepared list of suitable URLs which have been carefully checked or carefully selected search criteria	• this activity can be from a given URL or through a search engine
Session Plan Six and Seven				
• to locate information from a website using a search engine	2.2.1	• locate and retrieve information relating to a specific topic • produce a report	• exercise 2 could be used which involves searching for information on a particular topic, and producing a report	• provide documentation for exercise 2 • if the report is produced without formatting, it could be used in the next session, where it can be formatted using styles etc.

Session Plan Eight				
• set up a page format • create styles to a given specification • create headers and footers as specified • control pages • save and print the document	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	• print the unformatted version of the report • add the specified formatting to the report • save and print the final version of the report	• the unformatted report from the previous exercise could be used	• provide instructions on how to format, save and print out the report
Session Plan Nine and Ten				
• key in data • save and print document • import image • include graphic image downloaded from the Internet • set up a page format • apply styles • use headers and footers • automate paragraph numbering • control pages • output data	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	• type in text as specified in the documentation provided • print and save • apply formatting as specified • search for, and retrieve, a graphic image from the internet • insert the graphic, and manipulate it and the text surrounding it, as specified • save and print document	• draft and final documentation detailing raw text to be input • guidance on the type of graphics file to be located using the Internet, and instructions for inserting, positioning and manipulating it in the document • instructions for document format and layout • instructions for printing and saving documents	• ensure that text to be input can be assigned headings, subheadings and bulleted lists • 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 • 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

Session Plan Eleven				
• set up directories/folders as specified • delete data • copy data • move data	10.2.1 10.3.1 10.4.1 10.5.1	• create directories • create subdirectories • organise files into relevant directories, as specified • delete, copy and move files as specified	• access to various types of files which can be organised into directories/folders and subdirectories/ folders • instructions for the creation of directories/folders and subdirectories/folders within them, to enable the efficient organisation of files • details of which files are to be copied and moved, and into which directories/folders and subdirectories/folders • instructions for printing out specified directory/folder structure	• guidance on the following topics could be provided to aid understanding: - 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 - common storage capacities for drives, KB, MB, GB - how to check storage capacities of drives, in particular floppy disks - how to format a disk - making backup copies of files • instructions should be provided on creating and organising directories/folders, and subdirectories/ folders within them • describe the hierarchical structure of directories/folders • provide guidance on obtaining printouts of directory/folder structure

Session Plan Twelve, Thirteen and Fourteen				
• key in text • save data • create table and manipulate as specified • key in data • enter formulae using arithmetic operations and numeric functions. Include use of absolute reference/s • sort data • select subsets of data using more than one criterion • save data	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	• collect data using a brainstorming session as specified in exercise three • produce a text file based on the outcome of the session, and save • produce required tables in a database/spreadsheet and add around 30 records • perform necessary calculations • sort and select data to be extracted and used in the text file • save the file	• exercise 3 documentation • instructions for brainstorming session for collection of data • 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 • details of how data is to be sorted and extracted from the database/spreadsheet, using more than one criterion (numeric, text or boolean)	• 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 • 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

Session Plan Fifteen, Sixteen and Seventeen				
• set up a page format • use styles • use headers and footers • automate paragraph numbering • control pages • load data from an existing file • present numeric data as graph or chart • import image • combine text, image and numeric data into one document • save and print document	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	• open the text file, and apply specified document format and styles • insert the prepared table from the database/spreadsheet into the text file • produce various graphs from the data. Insert a graphic/clipart into the text file and resize • save and print the draft and final documents	• text file and database/spreadsheet file • instructions for document format and styles to be applied to the text document • specifications for types of graphs to be produced • provide graphic/clipart to be inserted	• exercise 4 could be used, which continues on from exercise three • document format could include page size, orientation, and numbering; margins, columns, headers and footers and page/column breaks • styles to include bulleted list/s • 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 • provide details for positioning and manipulation of inserted graphic/clipart • include instructions for saving and printing the draft and final documents
Session Plan Eighteen				
• undertake Advanced Module Specimen Test	all	• Module Test		
Session Plan 19				
		• practise test debrief session: discussion of answers		
Session Plan 20				
• Undertake Module Assessment	All	• Module Assessment		

Suggested Exercises for Optional Module

Exercise One

Possible activity for session plan two in suggested scheme of work.

- reply to the sender, and at the same time send a carbon copy to one candidate and a blind carbon copy to another
- printed copies of all messages received and sent which should be kept as evidence
- save attachments to your storage area
- open the attachment/s using appropriate software packages, make specified amendments, and to print the amended contents
- the amended file/s should be sent back to the sender as attachments, with a message providing details of amendments made

Exercise Two

Possible activity for session plans six and seven in suggested scheme of work.

- search the Internet for information on at least five different Internet Service Providers, produce an unformatted report of at least 2000 words comparing services offered by each, and incorporate at least five different headed sections in the report
- save this as a TXT file
- include a list of URLs of websites from which the information has been acquired

Exercise Three

Possible activity for session plan eight in suggested scheme of work.

Using the TXT file produced in the previous activity, set up the page format as follows, using section breaks where required:
- set the page orientation to Portrait and the page size to A4

The first page should be a front cover page, consisting of the following:
- a report title, centred, in a sans serif 18 point font
- your name under the title, centred, in the same font, with a font size of 16 points

For the remainder of the document, format as follows:
- set the page orientation to portrait and the page size to A4
- set the top margin to 2cm, the bottom margin to 2cm and the left and right margins to 2.5cm
- set a style for the body text to a sans serif font, with a font size of 12 points
- set a style for headings to a font size of 14 points
- set a style for the page heading to a font size of 16 points
- insert a header with the report title right-aligned
- insert a footer with your name left-aligned and the page number right-aligned
- the page numbering should be automated and give the current page number and the total number of pages (this does not include the cover page, which should not have a header, footer, or page number)
- the list of URLs should be included as an appendix
- produce a table of contents from the headings (this page should not have a header, footer, or page number)
- save and print the document

Exercise Four

Possible activity for session plan six in suggested scheme of work.

- search the Internet for information on the most widely used instant messaging services and produce a report which compares the facilities in each
- produce a summary of the main facilities
- make recommendations for the best service

Exercise Five

Possible activity for session plans nine and ten in suggested scheme of work.

Search the Internet for information on a subject of your choice, and write a report using information acquired, which should include graphical images. These must be freely available from the Internet, and not taken from a site without permission.

The report should include a list of at least 8 URLs, which should be from different websites. This should be formatted as an automated bulleted or numbered list.

Provide details of styles used which should include body text, headings, subheadings, headers and footers. A bulleted or numbered list should be incorporated into the document.

Save and print the document.

Exercise Six

Possible activity for session plans twelve, thirteen and fourteen in suggested scheme of work.

You work for an organisation that runs various training courses. The organisation has decided to host an exhibition to boost student numbers and needs various documents producing from pre-stored data files.

Hold a brainstorming session to get the students to collect data under the following headings; this should produce a table of at least 30 records that can be used in a spreadsheet or database.

Lastname	Town	Date of Birth	Course Name	Trainers Initials	Start Date	End Date	No of Days	Cost

Various Course Names can be used for example: Electronics, Engineering, Computer Numeric Control, Computer Systems, Computer Applications, etc. You should also create another table with these Course Names and Trainers Initials column. This table will be used with the above table to Lookup; this will automate the input of Trainers Initials per course. You will also need a cell that can be used as an absolute reference; this could be the rate per day, to be used when calculating the cost of per course.

Prepare a text file on the above subject, approximately 1000 words. The text should contain some text to be assigned the following styles: Heading, Subhead, Body Text and Bullets

Save and print the document.

Create the spreadsheet file and perform calculations/functions.

Sort data and extract specific data items to be used in the text file.

Exercise Seven

Possible activity for session plans fifteen, sixteen and seventeen in suggested scheme of work.

- load the pre-saved text file
- change the page layout - margins
- set up styles to be used for all text
- format the text in the file to specific styles
- insert a spreadsheet/database file as a table into the text file and format, changing the page orientation to accommodate the table
- using the data in the spreadsheet/database table produce various graph types, inserting legend, labels and titles
- insert and resize a graphic/clip art into the text file
- save and print the document

Exercise Eight

Possible activity for session plan eight in suggested scheme of work.

You work from home for a company called UK Aeromodels, who sell model aircraft by mail order.

The proprietor has sent an email with two attachments, which you should download and save, and has instructed you to format the text in the file, MODEL.TXT, as follows:
- set the page orientation to portrait and the page size to A4
- set the top margin to 3cm, the bottom margin to 2cm and the left and right margins to 2cm
- set a style for the body text to a sans serif font, with a font size of 12 points
- set a style for the section headings to a font size of 14 points
- set a style for the page heading to a font size of 16 points

Insert the file PRICES.TXT, at the end of the document and convert it to a table. Ensure that the text has the same format as the body text style.

Adjust the layout so that the text in a section, or in the table, does not cross a page break.

Save the completed document and print a copy.

E-mail the file to your tutor.

Exercise Nine

Possible activity for session plan eight in suggested scheme of work.

- open the document produced in the previous exercise
- change the page layout - margins
- set up new styles to be used for all text
- display the table on a separate page, with landscape orientation, and increase the font-size
- save and print the document

Exercise Ten

Possible activity for session plans fifteen, sixteen and seventeen in suggested scheme of work.

Type the following data into a table.

R/C Ready-Built

Model	Wing Span	Motor	Price	Jan Total	Feb Total	Mar Total	Apr Total	May Total	June Total
Ready-Built Trainers									
Jumper 25	61"	25	£89.95	12	17	22	18	21	23
Bobcat 30	54"	25	£62.95	5	9	13	15	15	25
Arising Star	63.5"	46	£69.95	5	4	5	5	7	7
Bobcat 30	54"	32	£62.95	5	7	9	11	15	14
Thunder Tiger 2000	61"	46	£72.95	12	12	16	15	18	21
Thunder Tiger 40	73"	46	£69.95	8	5	10	12	10	11
Thunder Tiger 60	61"	60	£119.95	16	2	5	6	9	7
Ready-Built Sports/Scale									
Extra 300	50"	53	£78.95	7	12	13	15	16	20
Space Walker	63"	53	£78.95	8	12	13	11	11	14
Seagull 40	60"	46	£68.95	7	6	7	9	12	13
Travelair	62"	46	£69.95	3	8	8	9	14	17
Fairchild PT 19	56"	53	£79.95	8	11	16	17	16	16
Aviator	57"	53	£69.95	5	6	7	6	8	9

Add a column for the six-monthly totals and a column for total amount taken for each model

Produce 2 pie charts, labelled appropriately, to show the following:
- the first should show the total number of each type of Ready-Built Trainer sold over six months
- the second should show the total number of each type of Ready-Built Sports/Scale Model sold over six months
- produce 2 bar graphs covering the six month period, showing the number sold in each month, of the best selling model for each of the two categories Ready-Built Trainer and Ready-Built Sports/Scale
- write a report for the proprietor which summarises the table, and which gives an overall picture of which are the most and least popular models overall, and which incorporates the charts and graphs produced in 3 and 4 above
- set up an appropriate page format, and apply appropriate styles to body text and headings
- Use headers and footers, and use breaks to control pages where necessary
- include an automated bulleted or numbered list in the report
- insert the image MAGNUM.JPG into the report, manipulating as necessary
- save and print the document

Exercise Twelve

Possible activity for session plan eleven in suggested scheme of work.

- print out a listing of files in your storage area (all printouts in this exercise should show the name of each file, its size and a time and date stamp)

For the following steps, describe how you performed each operation:
- create a folder/directory in your storage area called myfiles
- create the following new folders/directories in the myfiles folder/directory
  - images
  - text
- obtain a printout of the contents of the myfiles folder/directory
- copy all of the image files only, from your storage area, to the images folder/directory
- obtain a printout of files in the images folder/directory
- delete the original image files from the initial storage area
- move all of the TXT files only, from your storage area, into the text folder/directory
- obtain a printout of the files in the text folder
- obtain a new printout of the initial storage area
- obtain a printout of the steps taken to perform the above operations