Business & Computing Examinations (BCE)
LONDON (UK)

Information Technology Programme Analysis

The development of BCE Programmes include extensive market research from the following sources:
- Data from BCE Centre Annual Reports.
- Enquiries received from different stakeholders.
- Email survey from statutory consultees and stakeholder bodies.
- Questionnaire survey from BCE learners.
- Input received during Approved Centres and Corporate companies training seminar.
- BCE discussions and feedback from potential employers.

BCE learners are 18+, classified as follows:
- Holders of General Certificate of Secondary Education (GCSE) intending to obtain a Programme for employment or further education.
- Those already in employment furthering their knowledge for promotion or to venture into new fields.
- Corporate Companies approaching BCE directly or Approved Centres for in-house training.
- Those looking for career change.
- Mature adults with no formal education.

Guided Learning Hours is the entire notional learning hours representing estimate of total amount of time reasonably required for learners to achieve necessary level of attainment for the award of a Programme.

Activities that contribute to guided learning hours include:
- Guided Learning
- Independent and unsupervised research/learning
- Unsupervised compilation of a portfolio of work experience
- Unsupervised e-learning
- Unsupervised e-assessment
- Unsupervised coursework
- Watching a pre-recorded podcast or webinar
- Unsupervised work-based learning

Activities that contribute to Guided Learning include:
- Classroom-based learning supervised by a Tutor
- Work-based learning supervised by a Tutor
- Live webinar or telephone tutorial with a Tutor in real time
- E-learning supervised by a Tutor in real time
- Forms of assessment

Level 3 Certificate in Information Systems (75 Credits)

This is an introductory entry level Programme and is a minimum requirement before undertaking the Diploma in Information Technology. This Programme provide learners with knowledge on (i) how a computer operates (ii) different computer parts (iii) computer numbering system (iv) how data is transformed into information (v) technical system implementation. There are no clerical jobs any more, hence understanding computer basics is crucial.

Why does the Programme exists – The purpose of this Programme is to familiarise learners with the basic Computer Organisational Structure, how Information Systems are implemented in organisations and improve the standard of English Grammer.

How does it fits into the larger programme – This is an entry level into the world of computer studies. On completion of the Level 3 Certificate, learners proceed to Level 5 Diploma in Information Technology. However, the Level 3 Certificate can be offered as a combined Level 3 Certificate in Information Systems & Level 5 Diploma in Information Technology.

For who it was designed – The Programme is designed for 18 year olds and above, with little or no computing knowledge.

How it will benefit learners – The importance of computer basics, information systems and business English cannot be over emphasised, everything we do on a daily basis – be it personal or professional, revolves somehow on computing and information issues – from topping up a mobile phone to withdrawing cash from the cash machine; at the same time globalisation and web has made the world smaller, making our standard of English and Reports we produce visible across the globe.

Units:
- Introduction to Computers
- Business Information Systems
- Business English & Report Writing

Introduction to Computers - there are different models of computers and each is made up of many parts. There are many questions a new computer user can ask; how does the computer startup; what causes errors when working on the computer; how does the computer save work, print or store programs?

Business Information Systems - an information system is a collection of methods, practices, algorithms and methodologies that transforms data into information. It provides a sound foundation in business, technical and human issues of information systems design, development and management.

Business English & Reporting - every business produces documents. Report writing is at the core of business activities and functionalities; everything rotates around it. Producing documents with grammatical errors and unstructured reports lead to wrong interpretations, waste of time and losses.

Unit	Pre-requisite	Core-requisite	Guided Learning Hours ()	Number of Credits
Introduction to Computers	None	A minimum of 3 GCSEs at grade C or higher. .	200	20
Business Information Systems	None	A minimum of 3 GCSEs at grade C or higher. .	200	20
Business English & Report Writing	None	A minimum of 3 GCSEs at grade C or higher.	200	20
Coursework (Project) for all units			150	15

Rules of combination:	All units are mandatory
Age Group:	18+
Programme Type:	Vendor/Industry

Introduction to Computers Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Computer components	2.0	8	6	2	2	2	20
02	Computer data format and representation	2.0	8	6	2	2	2	20
03	Computer hardware devices	2.0	8	6	2	2	2	20
04	Internet Service Providers and the Web	2.0	8	6	2	2	2	20
05	Computer applications and system software	2.0	8	6	2	2	2	20
06	System Software and how it interacts with other programs	2.0	8	6	2	2	2	20
07	Computer motherboard and components	2.0	8	6	2	2	2	20
08	Local Area Network architecture	2.0	8	6	2	2	2	20
09	Mobile computing and associated devices and programs	2.0	8	6	2	2	2	20
10	Internet security issues	2.0	8	6	2	2	2	20
		20.0	80					200

Business Information Systems Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Information Systems: Concepts and Management	2.0	8	6	2	2	2	20
02	The Modern Organisation in the Digital Economy	2.0	8	6	2	2	2	20
03	Ethics, Privacy and Information Security	2.0	8	6	2	2	2	20
04	Data and Knowledge Management	2.0	8	6	2	2	2	20
05	Network Computing	2.0	8	6	2	2	2	20
06	E-business & E-Commerce	2.0	8	6	2	2	2	20
07	Wireless, mobile computing and mobile commerce	2.0	8	6	2	2	2	20
08	Organisational Information Systems	2.0	8	6	2	2	2	20
09	Managerial Support Systems	2.0	8	6	2	2	2	20
10	Acquiring IT Applications	2.0	8	6	2	2	2	20
		20.0	80					200

Business English & Report Writing Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Speech vocabulary and grammar classification of words	2.0	8	6	2	2	2	20
02	Developing sentences	2.0	8	6	2	2	2	20
03	Functions of nouns in a sentence	2.0	8	6	2	2	2	20
04	Grammatical rules of compound, possessive nouns, punctuation and capitalisation	2.0	8	6	2	2	2	20
05	Personal pronoun and other classifications of pronouns	2.0	8	6	2	2	2	20
06	Role of verbs and what tense of a verb helps identify	2.0	8	6	2	2	2	20
07	Subject-verb rules and functions of adjectives	2.0	8	6	2	2	2	20
08	Functions of adverbs and the use of prepositions	2.0	8	6	2	2	2	20
09	Implementing conjunctions	2.0	8	6	2	2	2	20
10	Punctuation rules and different numbering systems	2.0	8	6	2	2	2	20
		20.0	**60**					**200**

The Level 5 Diploma in Information Technology (IT) is mainly used as an entry level to the different computing Programmes. On completion of the Level 5 Information Technology Programme, learners can advance themselves by choosing Computer Science, Networking (Networking Basics; PC Engineering & Structured Cabling; Routing; Unix or Windows), Web Design, Graphic Design, Programming or Database. Another option is to diversify into Business by choosing Accounting, Business Administration, Project Management, Business Economics, Management, Human Resources, Marketing, Finance, Administrative or Hospitality.

Why does the Programme exists – This is a hands-on Programme which covers Windows Operating Systems, Word, Excel, Access and PowerPoint. These computer application programs are used on a daily basis in each and every organisation, hence they are vital. Nowadays there are no clerical jobs any more, knowledge of application packages is considered as minimum requirement for most office jobs.

How it fits into the larger programme – This is a Level 5 Programme. On completion of the Level 3 Certificate in Information Systems, learners proceed to the Level 5 Diploma in Information Technology. However, this Programme is normally taken as a combined Level 3 Certificate in Information Systems and Level 5 Diploma in Information Technology.

For whom it was designed – The Level 5 Diploma in Information Technology is designed for anybody who wants to learn computer application programs. This Programme is also used as a base or minimum requirement for pursuing other BCE Level 4, 5 and 6 computing Programmes.

How it will benefit learners – Learners are involved in significant hands-on labs using Windows Operating System, Word, Excel, Access and PowerPoint application programs used in 95% of organisations, which makes it vital.

Units:
- Windows Operating Systems
- Microsoft Word
- Microsoft Excel
- Microsoft Access
- Microsoft PowerPoint

Windows Operating Systems - an operating system is a program designed to run other programs on a computer. In a computer the operating system is the most important program. It is considered the backbone of a computer, managing both software and hardware resources. An operating system is responsible for everything from the control and allocation of memory to recognising input from external devices and transmitting output to computer displays. It also manages files on computer hard drives keeping track of files and directories on the disk and control peripherals, like printers and scanners. The operating system is the most important program that runs on a computer. Every general-purpose computer must have an operating system to run other programs. Operating system influences the performance of all software on a computer. Without the knowledge on functions and operations of an operating system, there is no point in pursuing computer learning.

Microsoft Word - A word processor generally refers to a WYSIWYG ("What You See Is What You Get") system where the formatting takes place as text is entered; no further processing is needed prior to sending work to a printer. Microsoft Word is the most used word processor; used for producing documents and reports.

Microsoft Excel - A spreadsheet is the computer equivalent of a paper ledger sheet used for number calculations. It consists of a grid made from columns and rows. It is an environment that can make number manipulation easy and somewhat painless. Excel is without doubt a very powerful spreadsheet application and arguably the best in the world.

Microsoft Access - Microsoft Access is an application used to create small and midsize computer desktop databases for the Microsoft Office packages. It can also be used as a database server for web-based applications.

Microsoft PowerPoint - PowerPoint is a presentation software program that is part of the Microsoft Office package. PowerPoint uses a graphical approach to presentations in the form of slide shows that accompany the

oral delivery of a topic. This program is widely used in businesses and classrooms and is an effective tool when used for training purposes.

Unit	Pre-requisite	Core-requisite	Guided Learning Hours ()	Number of Credits
Windows Operating System	Computer basics.	A pass or higher in Certificate in Information Systems or equivalence	200	20
PowerPoint	Computer basics.	A pass or higher in Certificate in Information Systems or equivalence	200	20
Word	Computer basics.	A pass or higher in Certificate in Information Systems or equivalence	220	22
Excel	Computer basics.	A pass or higher in Certificate in Information Systems or equivalence	220	22
Access	Computer basics.	A pass or higher in Certificate in Information Systems or equivalence	240	24
Coursework (Project) for all units			190	19

Rules of combination:	All units are mandatory
Age Group:	18+
Programme Type:	Vendor/Industry

Windows Operating System Learning Hours Learning Hours Information Sheet

Unit Titles		Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Windows operating system basics, text processing and basic file management	2.0	8	6	2	2	2	20
02	Customising the user environment and managing disk storage	2.0	8	6	2	2	2	20
03	Printer management	2.0	8	6	2	2	2	20
04	Creating files and folders	2.0	8	6	2	2	2	20
05	Windows multimedia functionalities	2.0	8	6	2	2	2	20
06	Connecting to the internet and customising internet explorer	2.0	8	6	2	2	2	20
07	Computer networking basics	2.0	8	6	2	2	2	20
08	Linking objects in Windows	2.0	8	6	2	2	2	20
09	Troubleshooting Windows operating system	2.0	8	6	2	2	2	20
10	Installing and upgrading programs	2.0	8	6	2	2	2	20
		20.0	**80**					**200**

PowerPoint Learning Hours Information Sheet

Unit Titles		Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Powerpoint environment	2.0	8	6	2	2	2	20
02	Powerpoint presentation basics	2.0	8	6	2	2	2	20
03	Adding header and footer to slides	2.0	8	6	2	2	2	20
04	Applying formats to presentations	2.0	8	6	2	2	2	20
05	Important data	2.0	8	6	2	2	2	20
06	Adding images and charts to presentations	2.0	8	6	2	2	2	20
07	Applying and customising slide transitions	2.0	8	6	2	2	2	20
08	Creating powerpoint templates	2.0	8	6	2	2	2	20
09	Inserting hyperlinks on a presentation	2.0	8	6	2	2	2	20
10	Delivering presentations	2.0	8	6	2	2	2	20
		20.0	**80**					**200**

Word Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Basic word processing features	2.0	8	6	2	2	2	20
02	Proficiency in editing and formatting documents	2.0	8	6	2	2	2	20
03	Word page format orientation	2.0	8	6	2	2	2	20
04	Creating tables in Word	2.0	8	6	2	2	2	20
05	Creating index, table of contents, inserting headers, footers	2.0	8	6	2	2	2	20
06	Bookmarks and creating styles and templates in Word	2.0	8	6	2	2	2	20
07	Creating databases and mail merge documents	2.0	8	6	2	2	2	20
08	Linking and embedding documents	2.0	8	6	2	2	2	20
09	Inserting footnotes, captions and cross-references	2.0	8	6	2	2	2	20
10	Tracking, accepting and rejecting changes	2.0	8	6	2	2	2	20
11	Creating forms in Word and using macros in Word	2.0	8	6	2	2	2	20
		22.0	**88**					**220**

Excel Learning Hours Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Basic excel spreadsheet features	2.0	8	6	2	2	2	20
02	Using functions and formulas in Excel	2.0	8	6	2	2	2	20
03	Copying and moving formulas and functions	2.0	8	6	2	2	2	20
04	Creating charts in Excel	2.0	8	6	2	2	2	20
05	Creating, maintaining and formatting data groups	2.0	8	6	2	2	2	20
06	Data validation using functions	2.0	8	6	2	2	2	20
07	Creating templates and consolidating data	2.0	8	6	2	2	2	20
08	Exporting data	2.0	8	6	2	2	2	20
09	The auditing toolbar	2.0	8	6	2	2	2	20
10	Creating excel and report scenarios	2.0	8	6	2	2	2	20
11	Goal-seeking tool reports	2.0	8	6	2	2	2	20
		22.0	**88**					**220**

Access Learning Hours Information Sheet

	Unit Titles	Credits	Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
			Notional Learning Hours					
01	Access database environment	2.0	8	6	2	2	2	20
02	Access database components	2.0	8	6	2	2	2	20
03	Data types, field names and datasheet view	2.0	8	6	2	2	2	20
04	Populating tables	2.0	8	6	2	2	2	20
05	Access data validation	2.0	8	6	2	2	2	20
06	Processing queries and reports in Access	2.0	8	6	2	2	2	20
07	Importing data from Excel	2.0	8	6	2	2	2	20
08	Creating forms	2.0	8	6	2	2	2	20
09	Referential integrity	2.0	8	6	2	2	2	20
10	Analysing aggregate functions	2.0	8	6	2	2	2	20
11	Using switchboard manager	2.0	8	6	2	2	2	20
12	Creating Visual Basic applications in Access	2.0	8	6	2	2	2	20
		24.0	**96**					**240**

The Level 6 Advanced Diploma in Information Technology focus on complex issues in Windows Operating System, Word, Excel, Access and Email Communication & Internet Technology. The Programme prepare learners to work as Senior IT Managers, with a thorough understanding of highly developed computer applications.

Why does the Programme exists – This Programme prepare learners for complex and advanced features of Windows Operating System, Word, Access, Excel, Email Communication & Internet Technology. On completion of the Programme, learners will be able to: create and use templates, conditional formatting, data validation, protection, import/export, macros, advanced emailing tools including printing options. Also included is working with multiple pages, creating formulas and formatting across pages, consolidating data, formula auditing; advanced functions. The aim of the Programme is to produce highly qualified Senior IT Managers who can design complex application programs and solve information technology problems.

How it fits into the larger programme – The Level 6 Advanced Diploma in Information Technology enable learners to learn complex topics, giving them a choice of advancing into further education or look for employment. The Level 6 Diploma Programme give learners extra advantage when diversifying to other Programmes.

For whom it was designed – The Level 6 Advanced Diploma in Information Technology is designed for Level 5 Diploma in Information Technology holders or equivalent Programme interested in pursuing further education or improving credentials to look for employment.

How it will benefit learners – The Level 6 Diploma in Information Technology focuses on advanced topics which are extremely important, for example, macros and formulas in Word, Excel and Access. To be competitive, learners need to go an extra mile and stand out and be able to perform complicated formulas, troubleshooting internet and email issues – something few people can do.

Units:
- Advanced Windows Desktop Operating System
- Email Communication & Internet Technology
- Advanced Word
- Advanced Excel
- Advanced Access

Advanced Windows Desktop Operating System – an overview of how devices are connected and managed in a Desktop environment as compared to Network environment. The operating system is responsible for allowing users to log on and off. Another important aspect of the operating system is security.

Email Communication & Internet Technology – we can not underestimate the importance of email communication today, hence knowledge of internet technology and security implications can help many organisations. Microsoft Outlook is a personal information manager that is made up primarily of the following components: The *Mail* component lets you send, receive and manage email messages. The *Calendar* is used to keep track of appointments and plan meetings with other Outlook users. The *Contact*s area is used to maintain address information for all internal and external contacts.

Advanced Word –features include tracking changes, inserting comments and using the highlight tool in a document. Forms play a vital role and also document index.

Advanced Excel – features include (i) sorting, filtering and grouping (ii) data validation (iii) protecting a workbook (iv) financial functions (v) what-if analysis (vi) exporting data (vii) macros.

Advanced Access – features include (i) object linking and embedding (ii) advanced queries (iii) custom forms (iv) customising reports (v) PivotTables, PivotCharts, XML and SQL server (vi) relational relationships (vii) macros.

Unit	Pre-requisite	Core-requisite	Guided Learning Hours ()	Number of Credits
Advanced Windows Operating System	Good knowledge of file management.	A pass or higher in Diploma in Information Technology or equivalence.	200	20
Email Communication and Internet Technology	Good knowledge of file management.	A pass or higher in Diploma in Information Technology or equivalence.	240	24
Advanced Word	Good knowledge of file management.	A pass or higher in Diploma in Information Technology or equivalence.	220	22
Advanced Excel	Good knowledge of file management.	A pass or higher in Diploma in Information Technology or equivalence.	220	22
Advanced Access	Good knowledge of file management.	A pass or higher in Diploma in Information Technology or equivalence.	220	22
Coursework (Project) for all units			210	21

Rules of combination:	All units are mandatory
Age Group:	19+
Programme Type:	Vendor/Industry

Advanced Windows Operating System Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Managing system devices and device drivers	2.0	8	6	2	2	2	20
02	Different operating systems and functions	2.0	8	6	2	2	2	20
03	Installing operating system,	2.0	8	6	2	2	2	20
04	Optimising and maintaining Windows operating system	2.0	8	6	2	2	2	20
05	Computer motherboard form factors and power supplies	2.0	8	6	2	2	2	20
06	Different types and features of motherboards	2.0	8	6	2	2	2	20
07	Web browsers and navigating the web	2.0	8	6	2	2	2	20
08	Networking services and basics of TCP/IP	2.0	8	6	2	2	2	20
09	Inter-application communication	2.0	8	6	2	2	2	20
10	Troubleshooting operating system failures	2.0	8	6	2	2	2	20
		20.0	**80**					**200**

Email Communication and Internet Technology Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Uses, impacts and controversies of the Internet	2.0	8	6	2	2	2	20
02	Internet criminal activities	2.0	8	6	2	2	2	20
03	Internet connection options, technologies and equipment	2.0	8	6	2	2	2	20
04	Web mail services	2.0	8	6	2	2	2	20
05	Email communication programs	2.0	8	6	2	2	2	20
06	Creating email	2.0	8	6	2	2	2	20
07	Creating groups	2.0	8	6	2	2	2	20
08	Email address	2.0	8	6	2	2	2	20
09	Email features	2.0	8	6	2	2	2	20
10	Internet backbone and various technical services	2.0	8	6	2	2	2	20
11	Internet privacy, surveillance issues	2.0	8	6	2	2	2	20
12	Tools for creating websites and web hosting services	2.0	8	6	2	2	2	20
		24.0	**96**					**240**

Advanced Word Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Using the highlight tool to track and insert comments	2.0	8	6	2	2	2	20
02	Automating and customising word documents	2.0	8	6	2	2	2	20
03	Creating on screen forms	2.0	8	6	2	2	2	20
04	Creating index entries	2.0	8	6	2	2	2	20
05	Mail merge tool	2.0	8	6	2	2	2	20
06	Working with shapes, text boxes, pictures	2.0	8	6	2	2	2	20
07	Inserting pictures	2.0	8	6	2	2	2	20
08	Styles and themes	2.0	8	6	2	2	2	20
09	Inserting formulas in Word	2.0	8	6	2	2	2	20
10	Importing and exporting	2.0	8	6	2	2	2	20
11	Work option tools	2.0	8	6	2	2	2	20
		22.0	88					220

Advanced Excel Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Designing a Workbook and creating Pivot tables	2.0	8	6	2	2	2	20
02	Data validation using logical functions	2.0	8	6	2	2	2	20
03	Auditing and sharing workbook	2.0	8	6	2	2	2	20
04	Excel Financial functions	2.0	8	6	2	2	2	20
05	Performing complex tasks using What-if-analysis	2.0	8	6	2	2	2	20
06	Locking cells	2.0	8	6	2	2	2	20
07	Inserting passwords	2.0	8	6	2	2	2	20
08	Linking workbooks	2.0	8	6	2	2	2	20
09	Importing external data into Excel	2.0	8	6	2	2	2	20
10	Protecting workbook, formatting and customising ribbons	2.0	8	6	2	2	2	20
11	Creating Visual Basic applications	2.0	8	6	2	2	2	20
		22.0	88					220

Advanced Access Learning Hours Information Sheet

	Unit Titles	Credits	Notional Learning Hours					
			Guided / Contact Learning	Independent Learning	Research Activities / Group Work	Assessment (self/class)	Coursework	Total
01	Integrating Access with other applications	2.0	8	6	2	2	2	20
02	Advanced Access queries	2.0	8	6	2	2	2	20
03	Customising forms	2.0	8	6	2	2	2	20
04	Customising reports	2.0	8	6	2	2	2	20
05	Using CSV and XML files	2.0	8	6	2	2	2	20
06	Using action queries	2.0	8	6	2	2	2	20
07	Importing and exporting data	2.0	8	6	2	2	2	20
08	Locking database	2.0	8	6	2	2	2	20
09	Using macros in Access	2.0	8	6	2	2	2	20
10	Creating Visual Basic applications	2.0	8	6	2	2	2	20
11	Data replication and integrity	2.0	8	6	2	2	2	20
		22.0	88					220