



## Diploma in System Design (401) 135 Credits



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| <b>Unit:</b> Business Computer Systems   | <b>Guided Learning Hours:</b> 240  |
| <b>Exam Paper No.:</b> 1   | <b>Number of Credits:</b> 24   |
| <b>Prerequisites:</b> Basic knowledge of computing terminology.  | <b>Corequisites:</b> A pass or better in Certificate in Computer Fundamentals or equivalence.  |
| <p><b>Aim:</b> This unit involves both theory (Business Computer Systems) and practical (DreamWeaver) sessions.</p> <p><i>DreamWeaver</i><br/>Learners will gain an extensive overview of the Dreamweaver workspace by learning how to create web pages. The unit covers how to set up a site, enter and format text, create hyperlinks, insert graphics and the steps involved to publish the pages to a server. Learners will learn how to create tables in Dreamweaver using the Insert command and with the Draw tool. Learners will also learn how to create a web site using a template that allows common elements to be repeated on every page, including creating simple forms to collect data, take a survey, etc. CSS (Cascading Style Sheets) and Behaviours are essential additions to almost any web site. Using style sheets to control the format and positioning of text on web pages, including how to use Dreamweaver's Behaviours (i.e. JavaScripts) to create rollover image buttons and slide shows is also covered.</p> <p><i>Business Computer Systems</i><br/>Business Computer Systems is centred on the effective use of information technology, computers, telecommunication networks to support management decision making and corporate strategy, hence providing all necessary operational level support for the organisation. A general study of computer types, capabilities, uses, and limitations from a business-oriented perspective. Use of operating systems and application software on a microcomputer. Use of network environments to access online resources. The unit illustrates the importance of internet and how organisations can make use of Internet/Web.</p> |  |
| <b>Required Materials:</b> Recommended learning resources.   | <b>Supplementary Materials:</b> Lecture notes and tutor extra reading recommendations.   |
| <b>Special Requirements:</b> Build web pages using DreamWeaver   |  |
| <p><b>Intended Learning Outcomes:</b></p> <p><i>DreamWeaver</i></p> <p>1 Overview of Dreamweaver workspace, familiarising with the different object palettes used to design and develop web pages in Dreamweaver.</p> <p>2 Building on the basic knowledge of Dreamweaver's workspace from previous topic and working with the document window, the objects palette, and property inspector to add, edit, and format text on a page.</p>   | <p><b>Assessment Criteria:</b></p> <p><i>DreamWeaver</i></p> <p>1.1 Describe Dreamweaver workspace, including its objects and palettes.</p> <p>1.2 Demonstrate how to define a site's local info.</p> <p>1.3 Demonstrate how to create a site map.</p> <p>1.4 Demonstrate how to open, save, rename, and delete files.</p> <p>1.5 Create and run simple HTML page.</p> <p>1.6 Demonstrate how to move files from one subdirectory to another</p> <p>1.7 Demonstrate how to preview work during development.</p> <p>2.1 Illustrate how to add text/paragraphs (including special characters)</p> <p>2.2 Demonstrate how to position, align, and indent text</p> <p>2.3 Describe how to apply HTML formatting properties</p> <p>2.4 Demonstrate how add Hyperlinks</p> <p>2.5 Explain how to add bulleted lists</p> <p>2.6 Demonstrate how to format text with</p> |




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| <p>3 How DreamWeaver allow users to quickly and easily add and manipulate graphics on a Web page.</p>   | <p>Dreamweaver's HTML Style</p> <p>3.1 Describe how to add images to pages</p> <p>3.2 Describe how to align images</p> <p>3.3 Describe how to add horizontal and vertical spacing</p> <p>3.4 Describe how to link images to other documents</p> <p>3.5 Describe how to create inline image maps</p> <p>3.6 Demonstrate how to create rollovers without writing JavaScript code</p> |
| <p>4 The design and layout work associated with building a Web page including some properties that are set "in the background" which affect how a Web page looks and acts.</p>                    | <p>4.1 Demonstate how to create the page title</p> <p>4.2 Describe how to create the background color</p> <p>4.3 Describe how to create text and link colors</p> <p>4.4 Define how to create top and left margins</p> <p>4.5 Describe META information (including page refresh and automatic redirect)</p>   |
| <p>5 Building and customising a table structure using DreamWeaver as well as columns in the spaces for "Rows" and "Columns".</p>  | <p>5.1 Describe how to add a table</p> <p>5.2 Describe how to set table properties</p> <p>5.3 Describe how to add and delete rows and columns</p> <p>5.4 Describe how to split and merge cells</p> <p>5.5 Describe how to format multiple cells</p> <p>5.6 Describe how to work with tables in the design and standard views</p>   |
| <p>6 Understand the importance of forms; creating web form with validation rules and customizing input boxes, list menus, submit buttons and how users communicate with a site.</p>               | <p>6.1 Demonstrate the process of adding forms</p> <p>6.2 Demonstrate the process of adding, positioning, and modifying text fields, drop-down menus, radio buttons, and checkboxes</p> <p>6.3 Demonstrate the process of editing form elements</p> <p>6.4 Demonstrate writing JavaScript code that uses regular expressions</p> <p>6.5 Describe how to add META information</p>   |
| <p>7 Using Dreamweaver's JavaScript debugger to isolate and fix problems with JavaScript code.</p>  | <p>7.1 Describe Dreamweaver's JavaScript Debugger</p> <p>7.2 Demonstrate the process of setting Breakpoints</p> <p>7.3 Demonstrate the process of setting stepping Through Code</p> <p>7.4 Describe the inherent Limitations of the Debugger</p> <p>7.5 Describe the Balance Braces Tool</p>   |
| <p>8 Understand how Dreamweaver offers a great toolset for working with CSS, focusing on the portion of CSS technology that controls how text appears on a site; and incorporating templates.</p> | <p>8.1 Describe CSS</p> <p>8.2 Define CSS selectors, style definitions, and Rules</p> <p>8.3 Demonstrate how to incorporate styles and style sheets</p> <p>8.4 Describe how to apply styles</p> <p>8.5 Demonstrate how to modify existing</p>  |

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|   | <p>styles</p> <p>8.6 Define Dreamweaver templates</p> <p>8.7 Describe how to create templates</p> <p>8.8 Describe locked and editable regions</p> <p>8.9 Demonstrate the process of applying templates</p>   |
| <p>9 How layers, that can be used instead of HTML tables, support features that HTML tables don't, such as the ability quickly place elements in a precise location and the ability to be hidden or shown based on events instantiated by the user.</p> | <p>9.1 Describe Layers and how to create them</p> <p>9.2 Describe the process of naming and renaming Layers</p> <p>9.3 Describe the process of positioning and resizing Layers</p> <p>9.4 Describe how to delete Layers</p> <p>9.5 Describe how to insert content into layers</p> <p>9.6 Describe hidden Layers</p> <p>9.7 Explain how to converting Layers to Tables, and Vice Versa</p> <p>9.8 Demonstrate using the "Z-Index"</p>   |
| <p>10 The importance of behaviours in Dreamweaver; Dreamweaver's site management and collaboration tools, which make it easier to perform the daily tasks associated with keeping a Web site current.</p>   | <p>10.1 Define Behaviours</p> <p>10.2 Describe the relationship among behaviours, events, and actions</p> <p>10.3 Describe the process of attaching behaviours to elements</p> <p>10.4 Explain how to use the show-hide layers behaviour</p> <p>10.6 Describe how to maintain the Jump Menu and Jump Menu Go Behaviours</p> <p>10.7 Describe the website management tools</p> <p>10.8 Define a Site</p> <p>10.9 Demonstrate how to connect to a Remote Site</p> <p>10.10 Demonstrate the process of transferring Files Between the Remote Site and Local Folder (uploading web pages)</p> <p>10.11 Describe the process of synchronizing and Refreshing the Local Folder and Remote Site</p> <p>10.12 Describe how to check for Broken Links</p> |
| <p><i>Business Computer Systems</i></p> <p>1. Information System (IS) management roles in an organisation and the recent Information Technology (IT) trends.</p>  | <p><i>Business Computer Systems</i></p> <p>1.1 Outline the differences between today's management of IT compared to pre-browser period.</p> <p>1.2 Analyse the computer information technology trends</p> <p>1.3 Describe the pros and cons of IT</p> <p>1.4 Outline the advantages and disadvantages of eCommerce</p> <p>1.5 Describe IS professional different positions</p>   |
| <p>2. The generations of computer systems and the characteristics of the major technological developments.</p>  | <p>2.1 Describe the CPU underlying structure</p> <p>2.2 Analyse PC manufacturers/vendors</p> <p>2.3 Describe multiprocessor</p> <p>2.4 Explain symmetric multiprocessor and parallel processor</p>   |
| <p>3. Analysing application and operating</p>   | <p>3.1 Present the differences between first and</p>   |

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| <p>system software programs including the compilers, and management resources utilities.</p>  | <p>second generation of programming languages</p> <p>3.2 Outline the differences between third and fourth generation of programming languages</p> <p>3.3 Describe the fifth generation of programming languages</p> <p>3.4 Analyse languages for developing Web applications</p> <p>3.5 Outline LAN and WAN network communication programs</p>  |
| <p>4. The similarities between network, telecommunication solutions; database management system and the functions of Database Administrator.</p>  | <p>4.1 Explain the differences between analogue and digital signals</p> <p>4.2 Outline speed transmission terminology</p> <p>4.3 Describe the types of transmission lines</p> <p>4.4 Identify the different transmission media and their speeds</p> <p>4.5 Describe LAN and WAN network protocols</p> <p>4.6 Demonstrate the components of entity-relationships</p> <p>4.7 Outline database architectures</p> <p>4.8 Analyse the tools for managing databases</p> <p>4.9 Outline database management policies</p> |
| <p>5. The differences between enterprise systems and managerial support systems used in improving effectiveness and efficiency of the enterprise decision making process of managers.</p> | <p>5.1 Describe eBusiness applications</p> <p>5.2 Demonstrate batch process vs online processing</p> <p>5.3 Explain functional information system</p> <p>5.4 Outline the differences between distribution and client/server systems</p> <p>5.5 Describe data warehousing</p> <p>5.6 Explore customer relationship management</p>  |
| <p>6. The major components of decision support systems specific features in application and complexity and the uses decision technology.</p>  | <p>6.1 Define data mining technology</p> <p>6.2 Outline geographic information systems technologies</p> <p>6.3 Describe Business Intelligence Systems</p> <p>6.4 Describe Knowledge Management Systems</p> <p>6.5 Analyse the different areas of Artificial Intelligence</p>  |
| <p>7. Electronic Commerce (eCommerce) technologies and the commercial history of the internet.</p>  | <p>7.1 Describe the technologies for B2C applications</p> <p>7.2 Describe the technologies for B2B applications</p> <p>7.3 Outline IT security technologies</p> <p>7.4 Explain eCommerce tax policies, copyright laws, antitrust laws and privacy issues</p>  |
| <p>8. Information System (IS) key elements, the IS life cycle multistep process; the different System Development Life Cycle (SDLC) implementation forms and model methodologies.</p>     | <p>8.1 Describe an organisation's information system</p> <p>8.2 Describe procedure-oriented techniques</p> <p>8.3 Describe object-oriented techniques</p>   |

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| 9. IT Project Management methodologies; how they are planned, monitored, controlled; the Information System (IS) application development; IS resource planning strategic tools and processes.   | 8.4   | Describe IS control mechanisms                             |
|   | 8.5   | Outline and describe the SDLC steps                        |
|   | 8.6   | Describe advantages and disadvantages of SDLC              |
|   | 8.7   | Describe prototyping; its advantages and disadvantages     |
|   | 8.8   | Describe RAD, JAD and CASE methodologies                   |
|   | 9.1   | Outline Project Management characteristics                 |
|   | 9.2   | Analyse components of Project Planning                     |
|   | 9.3   | Outline Project risks                                      |
|   | 9.4   | Describe Lewin/Schein change model                         |
|   | 9.5   | Explain strategies and tactics for managing user computing |
| 9.6   | Describe strategic IS plan                    |  |
| 9.7   | Describe operational IS plan                  |  |
| 9.8   | Outline the challenges forcing IS leadership  |  |
| 9.9   | Describe IS social, ethical and legal issues. |  |
| <p><b>Methods of Evaluation:</b> A 2½-hour essay written examination paper with 5 questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in both Business Computer Systems and DreamWeaver, each with a weighting of 50% [making a total of 100% for the two]. However, the written examination questions will only be based on <u>Business Computer Systems</u>.</p> |   |  |

**Recommended Learning Resources: DreamWeaver and Business Computer Systems**

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| <p><b>Text Books</b></p>  | <p><b>DreamWeaver</b></p> <ul style="list-style-type: none"> <li>• Dreamweaver CS3: The Missing Manual by David McFarland. ISBN-10: 0596510438</li> <li>• The Essential Guide to Dreamweaver CS3 with CSS, Ajax, and PHP (Paperback) by David Powers. ISBN-10: 1590598598</li> <li>• Macromedia Dreamweaver Hands-On Training (Paperback) by Daniel Short and Garo Green. ISBN-10: 0321293894</li> </ul>                                |
|   | <p><b>Business Computer Systems</b></p> <ul style="list-style-type: none"> <li>• Business Computer Systems: Using application software by David Kroenke. ISBN-10: 0938188364</li> <li>• Business Computer Systems: A Guide for Students and Small Business by R. Hudson and R. Batten. ISBN-10: 0070849765</li> <li>• Computer Information Systems for Business by V. Thomas Dock and James C. Wetherbe. ISBN-10: 0314931732</li> </ul> |
| <p><b>Study Manuals</b></p>  | BCE produced study packs  |
| <p><b>CD ROM</b></p>         | Power-point slides  |
| <p><b>Software</b></p>       | Macromedia DreamWeaver  |