Level 6 Advanced Diploma in Web Development (902)
153 Credits

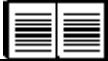|	
Unit: Active Server Pages (ASP .Net)	**Guided Learning Hours:** 260
Exam Paper No.: 4	**Number of Credits:** 26
Prerequisites: A solid background in HTML. Knowledge in SQL is an advantage.	**Corequisites:** A Pass or better in Diploma in eCommerce & Web Design or equivalence.

Aim: Learners learn about structure and architecture of Microsoft's .NET platform initiative; products and languages of the .NET platform; and the ASP.NET development tools. The unit covers ASP.NET development fundamentals and the available languages for developing ASP.NET applications as well programming basics. The unit then proceeds to cover creating ASP.Net applications with Visual Studio.NET, managing application state, accessing and binding data using ADO.Net, creating custom server controls. Users will learn to create web forms, use server controls, tracing and debugging applications. The unit will explore working with data, both directly from a database and through a tiered application architecture. Learners will learn how to display, edit, delete, and insert data through a web application using ASP's data controls. Users will learn how to add extensible site navigation features and discover how to support user accounts and role-level access rights. By the end of this unit, learners will be able to build a fully functional, well-architected, data-driven ASP web application. Learners will fully grasp the power of server-side programming using Active Server Pages (ASP). The unit will also cover the basics of ASP, including variables, conditionals, loops, form handling, and building and displaying dynamic pages from the server; how to send data to ASP pages, manage data, and write data out to server-side text files. Other topics include using the split and date functions, as well as the response and request objects; how to write and display values from server-side databases using both DSN and non-DSN sources. Database topics include accessing the database concepts, retrieving and displaying information, building tables, using loops, and writing data to the database, storing and retrieve cookies and handling errors on ASP pages.

Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Recommended textbooks and lecture notes.

Special Requirements: This is a hands-on unit, hence practical use of computers is essential. Requires intensive lab work outside of class time.

Intended Learning Outcomes:	Assessment Criteria:
1 Server-side technologies for developing portable, robust, scalable and secure applications and the setting up of a Web server.	1.1 Demonstrate how to use ASP tags 1.2 Illustrate how to create a date script 1.3 Describe the basics of creating ASP pages. 1.4 Describe how ASP works 1.5 Describe Server Side Web Development Technologies 1.6 Explain Server Side Technology
2 How ASP can read and write to a file, and the purpose of File System Objects (FSOs).	2.1 Describe how to read and write to text files stored on a web server 2.2 Describe how to add data to a text file 2.3 Describe how to write Form data to a text file 2.4 Demonstrate using variables and forms in Active Server Pages 2.5 Demonstrate how directories are created 2.6 Explain Global.asa is a text file
3 Understand how to use IF…THEN / FOR…NEXT construct statements	3.1 Demonstrate using the If....Then...Else instruction sequence 3.2 Demonstrate using the For....Next statements 3.3 Demonstrate using the Select Case....End

			Select statements
		3.4	Explain use of Operator statements in Loop structures
		3.5	Demonstrate creating the Do Until/While Loop
		3.6	Be able to implement Subroutines and Include/Virtual
		3.7	Demonstrate sending information to the client using cookies
4	Database driven pages, ActiveX Data Objects (ADO) comprising a set of Component Object Model (COM) objects for accessing data sources.	4.1	Demonstrate how to create scripts used to publish and navigate the content of the database
		4.2	Describe how to extract information out of a database into a web page
		4.3	Define database connections
		4.4	Demonstrate how to create recordsets
		4.5	Describe Universal Data Access (UDA) architecture
5	Understand the use and implementation of Arrays	5.1	Create a sample example of an array program
		5.2	Demonstrate declaring an Array
		5.3	Explain how to work with Arrays
		5.4	Be able to filter values from a array
6	Editing records in a database; accessing a database from an Active Server Page and displaying pictures from ASP file	6.1	Identify how to create password protected interface used to edit contents of database
		6.2	Demonstrate how create code that automatically iterates through incoming Form information and enter it into a database.
		6.3	Identify how to add or remove fields to a Form or database
		6.4	Create a sample program displaying a picture
		6.5	Create a rudimentary banner program
		6.6	Create database queries using SQL (Structured Query Language)
		6.7	Explain the MySQL database server
		6.8	Define the ADO.NET's object model
7	Shopping cart; online Shopping cart software ecommerce solutions for ecommerce websites and how different sessions are tracked.	7.1	Demonstrate how to display items for ecommerce sale
		7.2	Demonstrate how to search items by category or keyword
		7.3	Describe how to add items to the cart
		7.4	Describe how to edit quantity or remove items
		7.5	Describe to collect shipping and billing information
8	The process of sending email from a Web page; creating an online Form to allow visitors to send emails directly from website.	8.1	Define how to use the CDONTS object
		8.2	Demonstrate how to write email scripts
		8.3	Describe how built-in objects communicate with a web browser and different users can be distinguished.

Methods of Evaluation: A 3-hour essay written paper with 5 questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake coursework/project in Active Server Pages with a weighting of 100%.

Recommended Learning Resources: Active Server Pages .Net

Text Books	• ASP .NET Step by Step by Microsoft Press. ISBN-10: 0735612870 • ASP.NET - Kick Start by Stephen Walther. ISBN-10: 0672324768 • Beginning ASP.NET 1.1 E-Commerce: From Novice to Professional by Cristian; Watson, Karli Darie. ISBN-10: 1590592549
Study Manuals	BCE produced study packs
CD ROM	Power-point slides
Software	Active Server Pages .Net