BOOK

Internet Technology and Web Designing

DCSA 2303

Bangladesh Open University
School of Science and Technology

School of Science and Technology

Internet Technology and Web Designing

DCSA 2303

Writer

Mohammad Mamunur Rashid
Assistant Professor
School of Science and Technology
Bangladesh Open University

Md. Nazrul Islam
Assistant Professor
Department of Computer Science & Engineering
Islamic University, Kushtia

Editor

Dr. Md. Abul Kashem
Professor
Department of Computer Science & Engineering
Dhaka University of Engineering & Technology (DUET)

BANGLADESH OPEN UNIVERSITY

Print: November, 2014

Published by
Publishing, Printing and Distribution Division
Bangladesh Open University
Gazipur-1705.

Cover Design
Monirul Islam

Graphics
Abdul Malek

Computer Compose
Sabina Yesmin

Printed by

ISBN

© Bangladesh Open University

Bangladesh Open University
School of Science and Technology

Gazipur-1705
Website: www.bou.edu.bd

Contents

About this Book 1

How this Book is structured 1

Course overview 3

Welcome to Internet Technology and Web Designing 3
Course Code: DCSA2303 3
Credit hour: 3 hours 3
Course outcomes 3
Timeframe 3
Need help? 4
Assignments 4
Assessments 4

Getting around this Book 5

Margin icons 5

Unit 1 8

Computer Network and Internet 8
Introduction 8

Lesson 1.1 8

Introduction to Computer Network 8
Computer Network 8
Evolution of Computer Networks 9
Different types of Computer Network 10
Difference between LAN and WAN 12
Hardware Requirements for Network (Wired LAN) 12
Hardware Requirements for Network (Wireless LAN) 13
Personal Area Network (PAN) 13
Unit summary 13
Assessment 15

Lesson 1.2 16

Network Topology 16
Topology 16
Mesh Topology 16
Star topology 17
Tree Topology 18
Bus topology 19
Ring topology 19
Unit summary 20
Assessment 22

Lesson 1.3 **23**

Network Devices 23
Network Interface Card (NIC) 23
Modem 23
Hub 24
Switch 24
Comparison between switch and hub 25
Bridge 25
Router 26
Gateway 26
Unit summary 27
Assessment 28

Lesson 1.4 **29**

Introduction to Internet 29
Internet 29
History of Internet 30
Advantages of Internet 30
Access to Internet 31
Dial up connection 31
Leased Connection 32
DSL (Digital Subscriber Line) 33
Cable Modem Connection 33
VSAT 34
Unit summary 34
Assessment 35

Lesson 1.5 **36**

Internet Terminologies 36
World Wide Web (WWW) 36
Web Page 36
Web Site 37
Hyperlinks 37
URL 38
IP addresses 38
Telnet 38
File Transfer Protocol (FTP) 38
Web browser 38
Web Server 39
Downloading Files 39
Upload 40
Bookmarks 40
Unit summary 40
Assessment 41

Lesson 1.6 **42**

Web Applications 42
Web search engine 42
Improving Your Searches 42
Email Communication 43
Email Operation 43
E-governance 49
Social Networking 49
Assessment 50

Unit 2 **52**

Introduction to HTML 52
Introduction 52

Lesson 2.1 **52**

HTML Basics-1 52
What is HTML 52
HTML Tags 53
Structure of HTML Code 54
HTML Tag <HTML> 54
HEAD Tag <HEAD> 54
BODY Tag <BODY> 55
Unit summary 55
Assessment 56

Lesson 2.2 **57**

HTML Basics-2 57
Creating HTML Document 57
Saving HTML Document 58
Viewing HTML document 59
Unit summary 59
Assessment 61

Lesson 2.3 **62**

HTML Attributes 62
HTML Attributes 62
<BODY> Attributes 62
Background 63
Unit summary 63
Assessment 64

Unit 3 **66**

HTML – TEXT FORMATTING 66
Introduction 66

Lesson 3.1 **66**

Block formatting....66
Block Level Tags....66
Heading <H1>.....<H6>....67
Paragraph tag <P>....68
Line Break Tag <BR>....68
Preformatted Text Tag <PRE>....69
Horizontal Rule Tag <HR>....70
Unit summary....71
Assessment....72

Lesson 3.2 **74**

Character Formatting – 1....74
Character Formatting....74
Boldface Tag<b>....75
Italic Tag <I>....75
Underlined Tag <u>....76
Small <small>....76
Big <big>....77
Unit summary....77
Assessment....78

Lesson 3.3 **79**

Character Formatting – 2....79
Font Size and Colors....79
Superscript <sup>....80
Subscript <sub>....80
Strike through <strike>....81
Centering The Text 81
Unit summary....81
Assessment....82

Lesson 3.4 **83**

HTML – LIST 1....83
....83
LIST....83
Ordered List <OL>....83
Attributes of <OL> Tag....84
Nested Order List....85
Assessment....88

Lesson 3.5 **89**

HTML - List 2....89
Unordered List <UL>....89
Unit summary....90
Assessment....91

Unit 4 **92**

HTML – IMAGE, LINKS 92
Introduction 92

Lesson 4.1 **92**

HTML – Images 92
<IMG> Tag and the SRC Attribute 92
Attributes <IMG> 93
<IMG> Attributes 94
VSPACE and HSPACE 95
Border 95
Alt Attribute 96
Assessment 97

Lesson 4.2 **98**

HTML - Links 98
<A> anchor tag 98
Link within the same directory 99
Linking to another website 99
Email Link 100
Assessment 101

Unit 5 **102**

Advanced HTML 102
Introduction 102

Lesson 5.1 **102**

HTML – TABLE 102
Table tag <table> 102
Attributes of <TABLE> 103
Assessment 107

Lesson 5.2 **108**

HTML - FRAME 108
..... 108
Frame 108
Frame Elements 108
<FRAMESET> Tag 108
Attributes of <FRAMESET> 108
<FRAME> Tag 109
Attributes of <FRAME> 109
Unit summary 110
Assessment 112

Lesson 5.3 **113**

HTML – Form 113
HTML Form 113
Form Elements 113
Text Field 113
Password Field 115
Radio Button 115
Checkbox 116
Attributes of <INPUT> 117
<SELECT> Tag 117
Attributes of <SELECT> 118
Attributes of <FORM> 118
Assessment 119

Lesson 5.4 **120**

Dynamic HTML 120
Dynamic HTML 120
Marquee tag 120
Marquee with attributes 120
Assessment 122
Assignment 123

Unit 6 **124**

Cascading Style Sheets 124
Introduction 124

Lesson 6.1 **124**

Overview of Cascading Style Sheets 124
Why CSS 124
What is CSS? 124
CSS Syntax 125
Id and class Selectors 126
Class Selectors 126
Inline styles 127
Internal styles 127
External styles 128
Assessment 129

Lesson 6.2 **130**

Cascading Style Sheets- 2 130
CSS Background 130
Background Color 130
Background Image 132
CSS Background Image Positioning 132
Assessment 134

Lesson 6.3 **135**

Cascading Style Sheets- 3 135
CSS Font 135
Font Family 135
Font Style 135
Font Size 136
Set Font Size with Pixels 136
Set Font Size with Em 136
Assessment 138

Lesson 6.4 **139**

Cascading Style Sheets- 4 139
..... 139
Text Color 139
Text Alignment 140
Text Indentation 141
Text Decoration 142
Assessment 145

Lesson 6.5 **146**

Cascading Style Sheets- 5 146
Text conversion 146
Space between characters 147
Assessment 150

Lesson 6.6 **151**

Cascading Style Sheets- 6 151
CSS – Border 151
Border-color Property 151
Border-style Property 152
Border-width Property 152
Assessment 155

Lesson 6.7 **156**

Cascading Style Sheets- 7 156
List 156
CSS List Style Type 156
CSS – Images 158
Image border Property 158
Image height Property 158
Image width Property 159
Assessment 160

Lesson 6.8 **161**

Cascading Style Sheets- 8 161
Table 161
Table Borders 161
Collapse Borders 161
Table Width and Height 162
Table Padding 162
Assessment 164

Lesson 6.9 **165**

Cascading Style Sheets- 9 165
CSS Links 165
Text Decoration 165
Background Color 165
Color of Visited Links 166
Changing color of links 166
Changing color of active links 166
Assessment 168

Unit 7 **170**

Macromedia Dreamweaver 170
Introduction 170

Lesson 7.1 **170**

Dreamweaver installation 170
Feature of Macromedia Dreamweaver 170
Installing procedure of Macromedia Dreamweaver 171
Registering Dreamweaver 8 171

Lesson 7.2 **172**

Dreamweaver environment -1 172
Dreamweaver start-up window 172
Dreamweaver 8 workspace Layout 173
Document window 174
Document Toolbar 174

Lesson 7.3 **176**

Dreamweaver environment -2 176
Status Toolbar 176
Insert Toolbar 177
Coding Toolbar 178
Property inspector Toolbar 178
Files Panel 179

Lesson 7.4 **180**

Dreamweaver Editor....180
Creating new file in Dreamweaver....180
Saving files in Dreamweaver....182
Running files using browser in Dreamweaver....182
Opening existing file in Dreamweaver....183

Lesson 7.5 **184**

Dreamweaver GRAPHICS....184
Graphics in Dreamweaver....184

Lesson 7.6 **188**

Dreamweaver Links....188
Link using Dreamweaver....188

Lesson 7.7 **190**

Dreamweaver Table....190
Creating table....190

Lesson 7.8 **192**

Dreamweaver Form....192
Creating Form....192

Unit 8 **198**

Microsoft FrontPage....198
Introduction....198

Lesson 8.1 **198**

Microsoft FrontPage-1....198
Microsoft FrontPage....198
Starting Microsoft FrontPage....199
Creating Webpage....199
Saving Web Page....199
Closing WEB Page....199
Previewing a Web Page....200
Viewing the Web Page in Code View....200

Lesson 8.2 **201**

Microsoft FrontPage- 2....201
Changing background color....201
Creating Heading....202
Inserting Marquee....202
Formatting Web Page....202
Inserting Picture....203

Lesson 8.3 **204**

Microsoft Front Page- 3....204
Creating Hyperlinks....204
Understanding Tables....204
Creating table....204
Inserting column....205
Inserting row....205
Adding Table Caption....205

Unit 9 **206**

Scripting....206
Introduction....206

Lesson 9.1 **206**

VB Script-Basics....206
Defining Script....206
VB Script....207
VB Script Output....207
VBScript Editor....207
Writing VBScript....207
Assessment....209

Lesson 9.2 **210**

VB Script-variables, Data Types....210
Variables....210
Assigning Values to Variables....210
Rules for variable names....210
Array Variables....210
Data Type....211
Assessment....212

Lesson 9.3 **213**

VBScript-Function, Operators....213
VBScript Function....213
Calling Functions....213
Creating message box....214
VBScript Operators....215
Arithmetic Comparison....215
Logical....215
Assessment....216

Lesson 9.4 **217**

VB Script-Conditional statement....217
Conditional statements....217
Select Case Statement....219

Assessment 221

Lesson 9.5 **222**

VB Script looping 222
Loop 222
For Next Loop 222
Do...Loop 223
Assessment 225

Preface to the Edition

The course Internet Technology and Web Designing is including in the syllabus of Diploma in Computer Science and Application program to familiar a learner with Internet and Designing Web page. The book is written according to approved syllabus of the course and commonwealth of learning (COL) Template is used for writing the book. The basic aspects of Computer Networks and Internet Technology are presented. Hypertext markup language is discussed. It could be used to create simple web page.

The book is organized into 9 units. The coverage is modular in the sense that certain unit or group of units is self-sufficient. Visual Basic script is also presented in the 9 unit. At the end of each lesson, there are activity, exercise and hands on practices for preparation of examination. We hope that COL Template used in the process of writing texts, the lessons could be more organized and learners can be more skilled and benefited.

Suggestions for further improvement will be highly appreciated.

Dean

School of Science and Technology

Bangladesh Open University

About this Book

This book is a Self learning Materials (SLMs) written for distance learners. The book contains forty five lessons and has been produced by School of Science and Technology, Bangladesh Open University

How this Book is structured

The course overview

The course overview gives you a general introduction to the course. Information contained in the course overview will help you determine:

If the course is suitable for you.

What you will already need to know.

What you can expect from the course.

How much time you will need to invest to complete the course.

The overview also provides guidance on:

Study skills.

Where to get help.

Course assignments and assessments.

Activity icons.

Units.

We strongly recommend that you read the overview *carefully* before starting your study.

The course content

The course is broken down into units. Each unit comprises:

An introduction to the unit content.

Unit Objectives

Unit outcomes.

New terminology.

Core content of the unit with a variety of learning activities.

A unit summary.

Assignments and/or assessments, as applicable.

Answers to Assignment and/or assessment, as applicable

Resources

For those interested in learning more on this subject, we provide you with a list of additional resources at the end of this book; these may be books, articles or web sites.

Your comments

After completing Internet Technology and Web Designingwe would appreciate it if you would take a few moments to give us your feedback on any aspect of this course. Your feedback might include comments on:

Course content and structure.

Course reading materials and resources.

Course assignments.

Course assessments.

Course duration.

Course support (assigned tutors, technical help, etc.)

Your constructive feedback will help us to improve and enhance this course.

Course overview

Welcome to Internet Technology and Web Designing

Course Code: DCSA2303

Credit hour: 3 hours

Course outcomes

Upon completion of Internet Technology and Web Designing Writer you will be able to:

Outcomes

Explain Network and Internet.

Design Web page using HTML.

Design Web page using CSS.

Design Web page using Dream weaver.

Design Web page using Microsoft FrontPage.

Use Script in Web page.

Timeframe

How long?

This course will take approximately 20 weeks of study time.

Need help?

Help

1. The tutor at your study center.
2. Mohammad Mamunur Rashid
Assistant Professor
School of Science and Technology
Bangladesh Open University
Gazipur-1705
e-mail: mamunbou@gmail.com
Mobile:01716-115139

Assignments

Assignments

There are Two (2) assignments for this course.

Assignments should be submitted to your course tutor.

Schedule for submitting assignments:

First one during the middle of semester and another one is the last tutorial sessions of the semester.

Assessments

Assessments

Assessment will be followed in this course are -

Assignment 1	5%
Assignment 2	5%
Semester Final Examination	70%
Practical Examination	20%

Getting around this book

Margin icons

While working through this book you will notice the frequent use of margin icons. These icons serve to "signpost" a particular piece of text, a new task or change in activity; they have been included to help you to find your way around this book.

A complete icon set is shown below. We suggest that you familiarize

yourself with the icons and their meaning before starting your study.

Activity	Assessment	Assignment	Case study
Discussion	Group activity	Help	Note it!
Outcomes	Reading	Reflection	Study skills
Summary	Terminology	Time	Tip
Computer-Based Learning	Audio	Video	Feedback

Objectives	Basic Competence	Answers to Assessments	