Curriculum
For
PG Diploma in Web Designing
(Distance Mode)

2019 & onwards

Directorate of Distance Education
University of Kashmir
Syllabus for PG Diploma in Web Designing
for
Academic Session 2019 & Onwards
PG Diploma in Web Designing

STRUCTURE OF CURRICULUM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Maximum Marks</th>
<th>Credits</th>
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Paper Title: Computer Fundamentals and Applications

Unit-I

Unit-II

Unit-III

Unit-IV


Reference Books:
2. Peter Norton, Inside the PC, 2001, SAMS Tech Media

Paper Title: Relational Database Management Systems

Unit-I

Unit-II
Relational Data Model Concepts- Domains, Attributes, Tuples, Relations & their characteristics. Relational Data Model Constraints-Entity Integrity, Referential Integrity, Foreign Keys and other Relational Database design using ER to Relational Mapping.

Unit-III

Unit-IV


Reference Books:
3. Ivan Bayross, “SQL & PL/SQL using Oracle 8i & 9i SQLJ”, BPB.
Unit-I

I. Introduction to the Internet
   a) Introduction to HTML Terminology,
   b) HTML4 versus HTML5,
   c) Options for Writing HTML,
   d) Design Considerations and Planning,

II. Basic Tags and Document Structure,
   a. Headings,
   b. Lists,
   c. Links,
   d. Images,
   e. Audio & Video
   f. Tables

III. Forms
   a. Methods
   b. Elements

Unit-II

1. Concept of CSS,
   a. Creating Style Sheet,
   b. CSS Properties,
   c. CSS Styling (Background, Text Format, Controlling Fonts),

2. Working with block elements and objects,

3. Working with Lists and Tables,

4. CSS Id and Class,

5. Box Model
   a. Introduction,
   b. Border properties,
   c. Padding Properties,
   d. Margin properties),

6. CSS Advanced
   a. Grouping,
   b. Dimension,
   c. Display,
   d. Positioning,
   e. Floating,
   f. Align,
   g. Pseudo class,
   h. Navigation Bar,
   i. Image Sprites,
   j. Attribute sector
   k. CSS Color
   l. Creating page Layout and Site Designs,
   m. Transformations & Animations

UNIT III JAVA SCRIPT

1. Introduction to JavaScript
   1.1 Advantages of JavaScript
   1.2 Limitations of JavaScript
   1.3 Differentiate between JavaScript and Java
   1.4 Writing JavaScript into HTML

2. Building up JavaScript into HTML
   2.1 Basic Programming Techniques
   2.2 Data Types and Literal.
   2.3 Type casting
   2.4 Creating and incorporating variables in a Script.
   2.5 The JavaScript Array, the Elements of an Array.
   2.6 The JavaScript array and its length property.

UNIT IV JAVA SCRIPT

1. Operators and Expressions in JavaScript
   3.1 Arithmetic, Logical, Comparison, string, Assignment operator.

2. JavaScript Programming Constructs
   4.1 Conditional checking If then – else

3. Functions in JavaScript
3.1 Built-in Functions.
3.2 User Defined Functions.

4. Classes & Objects
working with Objects
4.2 Invoking methods
4.3 Events & Event Loop
4.4 Errors, Error Handling & Debugging

5 Introduction to jQuery
5.1 Installation & Use
5.2 Un-Obstructive JavaScript
5.3 jQuery Basics
5.4 Selectors
5.5 DOM attributes
5.6 DOM Traversing
5.7 CSS methods
5.8 Effects

Reference Books:
4. Ramesh Bangia , "Internet and Web designing ", Firewall Media .
Paper Title: Multimedia Systems

UNIT I: Adobe Photoshop
Introduction to Multimedia and Photoshop

1. Multimedia-Text, graphics, Animation, Audio, Images, Video
2. Applications of Multimedia in Education, Entertainment, marketing.
3. Introduction to Photoshop and Image Ready
4. Uses of different types of objects
5. Optimizing Photoshop Projects
6. Building a contact sheet
7. Use of file Browser, Multiple Views.
8. Selection Techniques
   8.1 Selection of Geometric Areas, colour Range
   8.2 Select Areas using quick mask, paths
   8.3 Modification, Save and Load of Selections.
9. Converting Files
   9.1 Save files in other formats.
   9.2 Move files from Mac to windows.
   9.3 Building of GIF files for the web.
   9.4 Build JPEG files for the web.

10. Working with Tone

UNIT II: Adobe Photoshop:
Drawing, Image Editing Building Web Files and Special Effects of Photoshop

1. Working with Colour
   1.1 Work with Colour Variations.
   1.2 Global Colour corrections.
   1.3 Subtle Colour changes.
   1.4 Build Duotones, Tritones, and Quadtones for the web.
2. Image Editing Basics
   2.1 Resize, Crop, Rotate of an Image
   2.2 Adding of Canvas, Silhouette an image.
3. Drawing Painting and filling with Colour.
4. Using Types
   4.1 Add Type to an image, Create 3D Text.
   4.2 Create typographical Style Sheets, filtered text effects.
   4.3 Build Filtered Text, wrapping of text.

UNIT-III
Photoshop-Layers, Paths, Effects

2. Working with Layers
   2.1 Creation, Moving and Linking of layers.
   2.2 Group layers, creation of Layer sets.
   2.3 Transformation and adjustment of layers.
   2.4 Add a layer Mask, merging and Flatten of Layers.
3. Building Web Files
   3.1 Preview files in Browsers and Platforms.
   3.2 Slice Images for the Web, Build Image maps.
   3.3 Filter Based GIF Animations.
   3.4 Building of JavaScript Rollovers and Web Gallery.
4. Special Effects Like (Blending, Glow effect, Lighting effects, Radial Blur, Adding Texture).

UNIT IV MS-Flash

1. Working with Flash, Working with Graphics, Working with symbols
2. Embedding In HTML.
3. Building Graphic Elements for a Flash Project
4. Basic animation, Animation in Flash, Types of Animation
5. Shape Tweening, staggering animation effect, working in the timeline
7. Sound in Flash
8. Video in Flash, Visual Elements in Flash
9. Adding Multimedia to Flash Projects
10. Types of Interactivity
11. Active Learning
12. Action Script in Flash, Components in Flash

Reference Books
3. Ulrich, "Macro Media Flash 5 for Windows and Macintosh", Pearson
UNIT I:
1.1 Installing and Configuring PHP on Windows
1.2 The Building Blocks of PHP
1.3 php.ini Basics
1.4 Variables
1.5 Data Types
1.6 Operators and Expressions
1.7 Constants
1.8 Flow Control Functions in PHP
1.9 Switching Flow
1.10 Loops
1.11 Code Blocks and Browser Output
1.12 Functions: Calling, Defining
1.13 Returning Values from User-Defined Functions
1.14 Variable Scope

UNIT II:
2.1 Working with Strings
2.2 Formatting Strings with PHP
2.3 Working with Dates and Times
2.4 Using Date and Time Functions in PHP
2.5 Session Function Overview
2.6 Starting a Session
2.7 Working with Session Variables
2.8 Destroying Sessions and Unsetting Variables

UNIT III:
3.1 Working with Forms
3.2 Predefined Variables
3.3 Creating a Simple Input Form
3.4 Accessing Form Input with User-Defined Arrays
3.5 Combining HTML and PHP Code on a Single Page
3.6 Using Hidden Fields to Save State
3.7 Redirecting the User
3.8 Including Files with include () and include_once ()

UNIT IV:
4.1 Connecting to MySQL with PHP
4.2 Working with MySQL Data
4.3 Working with Files
4.4 Creating and Deleting Files
4.5 Opening a File for Writing, Reading, or Appending
4.6 Reading from Files
4.7 Writing or Appending to a File

Reference Books:
3. Ed Lecky Thomsons & others "Professional PHPS" Wlox publications
5. Vaswani, "XHL and PHP" Peaseen
Paper Title: Lab-I for DWD19101

Paper Code: DWD19104    Credits: 03    Internals: 25    External: 50

Unit-I
DOS
a) Demonstration of basic internal and external commands
b) Creating a batch file
c) Passing an argument to a batch file

MS Word
a) Formatting a word document, changing margins, size, orientation and inserting breaks, new sections, watermarks, page borders
b) Creating an automated table of contents, table of figures, inserting an index, citing references and inserting bibliography
c) Using Mail merge & Macro

Unit-II
MS Excel
a) Referencing Cells range of cells- absolute and relative referencing
b) Using basic date time, statistical, logical and text functions
c) Conditional statements

Unit –III
MS Power Point
a) Using templates for designing presentations
b) Inserting transitional effects, timings
c) Adding animations
d) Using different monitors for different viewings
e) Using presentation views and master views

MS Access
a) Creating/designing a table using wizard
b) Query Designing using wizard
c) Designing crosstab , update and delete queries using wizard and SQL
d) Developing reports
e) Importing/ Exporting data from/to other data sources
Paper Title: Lab-II for DWD19102

Unit-I
Q1. Create table Student using SQL with following attributes and perform the following operations?
   Attribute Names: ST_ROLLNO, ST_NAME, ST_ADDRESS, ST_TELNO
   i. Add new attributes City, Street, Country with Datatype Varchar and length 30?
   ii. Modify field ST_ROLLNO and change the size to 5?
   iii. Remove column ST_ADDRESS?
   iv. Describe the Table Student?
   v. Drop Table Student?
   vi. Copy Structure of one table to another
Q2. Create table Student with following attributes and perform the following operations?
   Attribute Names: ST_ROLLNO, ST_NAME, ST_STREET, ST_CITY, ST_State, ST_Country,
   DTE_REG, MARKS
   i. Insert 10 records
   ii. Perform various Project Operations using Select Query.
   iii. Perform various restrict operations using Select Query.
   iv. Update & Delete records
   v. Copy records from one Table STUDENT to other Table TEST? Assume both have same table structure
   vi. Perform various restrict operations using Select Query using various arithmetic and Logical Operators like
       a. Less Than
       b. Greater Than
       c. Less Than or Equal to
       d. Greater Than or Equal To
       e. Equal to
       f. Not Equal To
   vii. Perform Update /Delete/Insert /Select operations using various Arithmetic and Logical Operators on Table STUDENT

Unit-II
Q1. Perform various DML operations to verify
   1. Domain Constraints
   2. Validity Integrity
   3. Entity Integrity using Primary and Unique Keys
   4. Entity Integrity
   5. Referential Integrity
   6. Perform ON DELETE CASCADE and ON UPDATE CASCADE
   7. Create and Drop Constraints using alter command
Q2. Perform the following join operations:
   i) Equi-Join
   ii) Non Equi-Join
   iii) Self-Join
   iv) Outer Join
Q3. Perform below Mentioned Operations on tables
   i) Create System named Constraints and User Defined Constraints
   ii) Create Column and Table Level Constraints.
   iii) View User Constraints Table for checking Constraint Parameters.

Unit-III
Q1. Create Users user1, user2, user3 and perform the following operations
   i. Grant Session Privilege to the newly created users?
   ii. Grant privileges for creating and manipulation tables?
iii. Grant data manipulation privileges to various users on tables?
iv. Grant/Revoke privileges with grant option.

Q2. Perform the following operations
i. Create Five Save Points from S1 to S5.
ii. Rollback to Various Save Points and observe the changes in the table.
iii. Perform various DDL operations the table and observe its effect on Save Point and Rollback on the table.
iv. Try to abnormally terminate the application to observe whether data is saved or not.
v. Use Commit and Commit Work commands to save the data permanently.
**Paper Title: Lab-III for DWD19103**

**Paper Code:** DWD19106  **Credits:** 03  **Internals:** 25  **External:** 50

**Unit-I**

**HTML5/CSS**
(i) Developing basic web page using different HTML5 formatting and layout tags
(ii) Use forms and Tables
(iii) Embedding Styles in a tag, with in a page (intra page), linking external CSS to a page
(iv) Use Selectors, Pseudo-Selectors and a class in a CSS
(v) Working with positions, floating, grouping and dimensions in CSS
(vi) Working with basic transformations and animations in CSS

**Unit-II**

**JAVA SCRIPT**
(i) Accessing different properties of a web page
(ii) Validating form elements of a page
(iii) Defining new functions
(iv) Creating classes in JavaScript
(v) Handling different events in JavaScript

**Unit-III**

**JQUERY**
(i) Using Selectors
(ii) Accessing form attributes/elements
(iii) Traversing DOM using JQuery
Unit-I
Photoshop
(i) Build a Contact Sheet  
(ii) Selection of Geometric Areas  
(iii) Select Areas using quick mask, paths  
(iv) Modify, Save and Load Selections  
(v) Convert files from one format to another format,  
(vi) Transfer files from one source platform to another platform  
(vii) Build PNG, JPEG and GIF files  
(viii) Measure & Compare Pixel Values of an Image  
(ix) Use dodge, burn and sponge tools  
(x) Build duotones, tritons & quadtones for the web

Unit-II
Photoshop
(i) Resize, Rotate & Crop an Image  
(ii) Adding of canvas, silhouette to an image  
(iii) Create 3D Text  
(iv) Building Full Text  
(v) Wrapping of Text  
(vi) Using paths like ---- Straight Path, Edge Path, Curved Path, Stroke Path  
(vii) Layers: Creation, Grouping & Transformation and Adjustment & Masking  
(viii) Use Special Effects like Blending, Glow Effect, Lighting Effect, Radial Blur, Adding Texture

Unit-III
Q5 MS Flash
(i) Embedding Flash in HTML  
(ii) Building Basic Animation  
(iii) Shape Tweening, Staggering animation Effect  
(iv) Adding Multimedia to Flash  
(v) Adding Interactivity to Flash
Unit-I
(i) Installing and configuring PHP (WAMP)
(ii) Configure PHP.ini
(iii) Use different PHP operators
(iv) Program to demonstrate the concept of associative and homogenous arrays
(v) Accessing different form elements using PHP
(vi) Program to demonstrate various control constructs
(vii) Program to demonstrate different date and time functions
(viii) Program to demonstrate different string functions

Unit-II
(i) Defining new functions
(ii) Program to demonstrate scope of a variable
(iii) Creating/destroying a session
(iv) Authenticating a user through session
(v) Use hidden form elements to maintain session
(vi) Include existing files in a PHP code

Unit-III
(i) Program to demonstrate below operations on a file
   a. Creation
   b. Deletion
   c. Read
   d. Write
   e. Appending
(ii) Connecting to MySQL
(iii) Perform various operations on MySQL
   a. Selection
   b. Creation
   c. Deletion
   d. Alter
   e. Drop
   f. Insertion
   g. Grant
   h. Revoke