



(A Venture of Chandigarh ETC Services Pvt. Ltd.)

An ISO 9001:2015 Certified Organisation with Completely Online Management System

Website : www.citcchandigarh.com

Course Syllabus: Advance Diploma in Computer Application & Programming

Batch Name: ADCAP

Eligibility: 12th

Course Start: 1st of Every Month

Course Duration: 720 Hours

Courses / Modules Paper

Semester 1

| Paper 1 | Paper 2 |
|---|------------|
| Fundamentals, MS Office, Internet (Digital Service) | Language C |

Semester 2:

| Paper 1 | Paper 2 |
|-----------|--------------|
| HTML, CSS | Project Work |

Semester 3:

| Paper 1 | Paper 2 |
|---------|------------|
| Jquery | JavaScript |

Semester 4:

| Paper 1 | Paper 2 |
|------------|--------------|
| Php, MySQL | Project Work |

Semester 1

Paper 1: Fundamentals, MS Office

1: Fundamentals of Computer

- 1.1 Introduction to Computer
- 1.2 Block Diagram of Computer
- 1.3 Classification of Computer
- 1.4 Characteristics of computer
- 1.5 Generations of Computer
- 1.6 Uses of Computer
- 1.7 Input Devices
- 1.8 Output Devices
- 1.9 Computer Memory
- 1.10 Computer Hardware
- 1.11 Computer Software
- 1.12 Operating System

2: Number System

- 2.1 Introduction
- 2.2 types of Number Systems
- 2.3 Conversion of Number system

3 : Windows-7

- 3.1 Introduction to Windows
- 3.2 User Interface of Microsoft Window 2007
- 3.3 Changing Desktop Background
- 3.4 Changing Window Color
- 3.5 Changing Screen Saver
- 3.6 Changing Screen Resolution
- 3.7 Changing Data/Time
- 3.8 Making Empty Recycle Bin
- 3.9 Restoring Deleted File
- 3.10 Hard Drives

- 3.11 File and Folder Views
- 3.12 Copying File and Folder
- 3.13 Opening a File and Folder
- 3.14 Deleting a File and Folder
- 3.15 Renaming File and Folder
- 3.16 Working with Calculator
- 3.17 Working with Paint
- 3.18 Working with Notepad
- 3.19 Windows 7 vs Windows 10

4 : Internet and Networking

- 4.1 Internet
- 4.2 Advantages & Disadvantages of Internet
- 4.3 Search Engines and Web Browsers
- 4.4 Website
- 4.5 Domain Name
- 4.6 E-Commerce
- 4.7 Email
- 4.8 Computer Security Threats
- 4.9 Networking
- 4.10 Network Topology

MS Office: MS Word

1: MS Word Home Tab

- 1.1 Introduction
- 1.2 Elements of MS Word
- 1.3 Explaining the Ribbons

2: MS Word Insert Tab

- 2.1 Insert
- 2.2 Pages
- 2.3 Tables
- 2.4 Illustrations

- 2.5 Links
- 2.6 Headers and Footers
- 2.7 Text Group
- 2.8 Symbols

3: MS Word Mailing

- 3.1 Create
- 3.2 Start Mail Merge

4: MS Word References

- 4.1 Table of Contents
- 4.2 Footnotes
- 4.3 Citation and Bibliography
- 4.4 Caption
- 4.5 Index
- 4.6 Table of Authorities

5: MS Word Review

- 5.1 Proofing
- 5.2 Comments
- 5.3 Tracking
- 5.4 Changes
- 5.5 Compare
- 5.6 Protect

6: MS Word Views

- 6.1 Document View
- 6.2 Show/Hide
- 6.3 Zoom Group
- 6.4 Macro

MS Excel

7: Introduction to Excel

- 7.1 Introduction
- 7.2 History of Excel

- 7.3 Uses of MS Excel
- 7.4 Important Components of Excel
- 7.5 Excel Window Overview
- 7.6 Font
- 7.7 Alignment
- 7.8 Clip Board
- 7.9 Number Formatting
- 7.10 Conditional Formatting
- 7.11 Format as Table
- 7.12 Cell Styles
- 7.13 Cells
- 7.14 Editing

8: MS Excel: Data

- 8.1 Get External Data
- 8.2 Sort and Filter
- 8.3 Data Tools

9: MS Excel: Insert

- 9.1 Tables
- 9.2 Illustrations
- 9.3 Charts
- 9.4 Links

10: MS Excel: Page Layout

- 10.1 Themes
- 10.2 Page Setup
- 10.3 Scale to Fit
- 10.4 Sheet Options
- 10.5 Arrange

11: MS Excel: Review

- 11.1 Proofing
- 11.2 Comments
- 11.3 Changes

12: MS Excel: View

- 12.1 Workbook Views
- 12.2 Show/Hide
- 12.3 Zoom
- 12.4 Window Group
- 12.5 Macros

MS Power Point

13: Power Point: Home

- 13.1 Starting MS Power Point
- 13.2 Elements of MS Power Point
- 13.3 Clip Board
- 13.4 Slides
- 13.5 Font Group
- 13.6 Paragraph
- 13.7 Drawing Groups
- 13.8 Editing Group

14: Power Point: Insert

- 14.1 Insert: Introduction
- 14.2 Tables
- 14.3 Illustrations Group
- 14.4 Links
- 14.5 Text Group
- 14.6 Media Group

15: Power Point: Design

- 15.1 Page Setup
- 15.2 Adding Themes to Presentation
- 15.3 Changing Slide Background
- 15.4 Variants

16: Power Point: Animation

- 16.1 Animations: Introduction
- 16.2 Timing Group
- 16.3 Add Custom Animation to Objects
- 16.4 Add Animations to Text
- 16.5 Custom Animation as Exact Effect
- 16.6 Motion Path under Custom Animation
- 16.7 Removing Animation
- 16.8 Transition to This Slide Tab
- 16.9 Advance slide

17: Power Point: Slide Show

- 17.1 Slide Show: Introduction
- 17.2 Slide Show Starting from the Beginning
- 17.3 Setup Group

18: Power Point: Review

- 18.1 Proofing
- 18.2 Comments
- 18.3 Protect Presentation

19: Power Point: View

- 19.1 View: Introduction
- 19.2 Presentation View Group
- 19.3 Show/Hide

- 19.4 Zoom
- 19.5 Color Tab
- 19.6 Window Tab
- 19.7 Macro

MS Access

20: MS Access-Overview

- 20.1 What is MS Access?
- 20.2 Advantages and Features of MS Access
- 20.3 Difference between Access and Excel
- 20.4 Architecture of MS Access
- 20.5 MS Access Objects
 - Tables
 - Queries
 - Forms
 - Reports
- 20.6 Other MS Access Objects
 - Macro
 - Module
- 20.7 Creating MS Access Database
 - Create Blank Database
- 20.8 Data Types Used in MS Access
 - Short Text
 - Long Text

21: MS Access-Creating Tables

- 21.1 Create Tables
- 21.2 Storing Data in Tables
- 21.3 Table Design View

22: MS Access-Query Data

- 22.1 What is Query in MS Access?
- 22.2 Create Select Query
- 22.3 Query Criteria
- 22.4 Action Queries
- 22.5 Types of Action Queries

23: MS Access-Relating Data

- 23.1 Introduction
- 23.2 Normalization
- 23.3 Defining Relationships
- 23.4 Types of Relationships
 - One-to-Many Relationships
 - Many-to-Many Relationships
 - One-to-One Relationships
 - Make-Table
- 23.5 Creating Relationships

24: MS Access-Grouping Data

- 24.1 Aggregate Query
- 24.2 Aggregate Query Functions
 - Sum
 - Avg
 - Min
 - Max
 - Count
 - StDev
 - Var
- 24.3 Concatenation of Data
- 24.4 Summarizing Data
 - Cross Tab Query

25: Joins and Query Wizard

- 25.1 What is Join?
- 25.2 Types of Joins in Access
 - The Inner Join
 - The Outer Join
 - The Left Outer Join
 - The Right Outer Join
 - Self Join
- 25.3 Concatenation of Data
- 25.4 Summarizing Data
 - Cross Tab Query
- 25.5 Query Wizard
 - Duplicated Query wizard
 - Unmatched Query Wizard

26: MS Access- Forms

- 26.1 Creating Forms
- 26.2 Two Basic Types of Forms
 - Bound Forms
 - Unbound Forms
- 26.3 Types of Bound Forms
 - Single Item Form
 - Multiple Item Form
 - Bound Forms
 - Split Forms
- 26.4 Creating Forms
- 26.5 Form Design

- 26.6 Modify Form
 - Themes
- 26.7 Navigation Form
- 26.8 Form Controls
 - Combo Box
 - Text Box
 - Label
 - Tab Control
 - Hyperlink
 - Check Box
 - List Box
 - Attachment
 - Image

27: MS Access- Reports

- 27.1 Creating Report
- 27.2 Create Report by Report Design
- 27.3 Formatting Reports

28: MS Access- Macros & Built-in Functions

- 28.1 What are Macros?
- 28.2 Creating a Macro
- 28.3 Formatting Reports
- 28.4 Built-in Functions

29: Data Import and Export

- 29.1 Import Different Types of Data
 - MS Excel
 - ODBC Database
 - Text Files
 - XML Files
- 29.2 Data Export
- 29.3 Data Export Formats
 - MS Excel
 - MS Access, XML Files
 - ODBC Database, Text Files

1 Internet & Digital Services

- 1.1 Internet
- 1.2 Advantages & Disadvantages of Internet
- 1.3 Search Engines and Web Browsers
- 1.4 Website
- 1.5 Domain Name
- 1.6 E-Commerce
- 1.7 Email
- 1.8 Computer Security Threats
- 1.9 Networking
- 1.10 Network Topology
- 1.11 Creating Account
- 1.12 Downloading and Uploading
- 1.13 E-Wallet
- 1.14 Trojan/Virus
- 1.15 UPI
- 1.16 Net Banking

Paper 2: Language C

1: Introduction of C

- 1.1 History
- 1.2 Why C language
- 1.3 Getting started with C
- 1.4 Writing first program: hello world
- 1.5 Algorithm and flowchart
- 1.6 Understanding the structure and syntax Of C
- 1.7 C programming style

2: Fundamentals of C

- 2.1 Introduction
- 2.2 Character set
- 2.3 Keywords
- 2.4 Identifiers
- 2.5 Variables
- 2.6 Data types
- 2.7 Constants
- 2.8 Declaring a keyword
- 2.9 Reading data from keyboard

3: Operators and expressions

- 3.1 Introduction
- 3.2 Arithmetic operator
- 3.3 Increment and Decrement operator
- 3.4 Assignment operator
- 3.5 Relational operator
- 3.6 Logical operator
- 3.7 Conditional operator
- 3.8 Bitwise operator
- 3.9 Special operators

4: Control Statements

- 4.1 Introduction
- 4.2 Branching statements
 - If
 - Nested if
 - If else
 - Nested if else
- 4.3 Looping statement
 - For loop
 - While loop
 - Do while loop
- 4.4 Jumping statement
 - Goto
 - Break
 - Continue

5: Function in C

- 5.1 Introduction
- 5.2 Types of functions
- 5.3 Types of user define functions
 - No return type with no arguments

6: Array in C

- 6.1 Introduction
 - Declaration of Array
 - Initializing an array
 - Accessing an Array
- 6.2 One-dimensional array
- 6.3 Two-dimensional array
 - Nesting of loops
- 6.4 Multi-dimensional array
- 6.5 Dynamic Array

7: Pointers in C

- 7.1 Introduction
- 7.2 Declaration of pointers
- 7.3 Initialization of pointers
- 7.4 Accessing variable through pointer
- 7.5 Pointer to a pointer
 - Declaring a double pointer
- 7.6 Operation on pointer
 - Increment and decrement operator
 - Addition and subtractions of constant value
 - Subtracting two pointers
 - Comparison between two pointers
- 7.7 Pointer to array
- 7.8 Array to pointer
- 7.9 Passing pointer as a function
- 7.10 Pointer to structure
 - Pointer pointing to a function

8: Structures in C

- 8.1 Introduction
- 8.2 Defining a structure
- 8.3 Declaring a structure member
 - Declaring structure variable separately
 - Declaring structure variable along with definition
- 8.4 Accessing structure member
 - With Dot operator
 - With arrow operator
- 8.5 Structure initialization
- 8.6 Array of structure
- 8.7 Using structure as a function argument
 - Passing structure member as an argument

9: Union in C

- 9.1 Introduction
- 9.2 Declaration of union
- 9.3 Accessing union member
- 9.4 Bit field

10: Input and output

- 10.1 Introduction
- 10.2 Standard files
- 10.3 Formatted input output
 - scanf()
 - printf()
- 10.4 Unformatted input output
 - getchar()
 - Getch()
 - gets()
 - putchar()
 - puts()
- 10.5 Error Handling
 - errno
 - strerror
 - Perror

11: File I/O

- 11.1 Introduction
- 11.2 Needs of files
- 11.3 Types of files
 - Text files
 - Binary files
- 11.4 Files operations
 - File creation
 - Opening a file
 - Reading data from file
 - Writing data to file
 - Closing a file
- 11.5 Reading writing text files
 - getc()
 - putc()
 - getw()
 - putw()
 - getchar()
 - putchar()
 - fprintf()
 - fscanf()
- 11.6 Reading writing binary files
 - fread()
 - Fwrite()

Semester 2

Paper 1: HTML, CSS

1: Starting with HTML

- 1.1 Introduction to HTML
- 1.2 What is HTML
- 1.3 HTML Versions
- 1.4 Web Browsers
- 1.5 HTML Editors
- 1.6 HTML Tags

2: HTML Images

- 2.1 HTML Images
- 2.2 alt attribute with images
- 2.3 style Attribute
- 2.4 Change the Height and Width of Image
- 2.5 Images as a Floating
- 2.6 HTML Images as a Link
- 2.7 Background Images
- 2.8 The <picture> Element
- 2.9 HTML Images vs Title Attribute

3: Links in HTML

- 3.1 Link
- 3.2 HTML Links
- 3.3 The Target Attribute
- 3.4 Images as Link
- 3.5 HTML Links Titles
- 3.6 External Paths
- 3.7 HTML Link Colors

4: HTML Lists

- 4.1 List
- 4.2 Types of Lists in HTML
 - Unordered List
 - Ordered List
 - Definition List

5: HTML Tables

- 5.1 Table Introduction
- 5.2 HTML Table-Adding Borders
- 5.3 HTML Table-Collapsed Borders
- 5.4 The Empty-cells Property
- 5.5 Table Heading Alignment
- 5.6 Cell Padding and Border Spacing
- 5.7 Cells that Span many Columns
- 5.8 Cells that Span many Rows
- 5.9 Adding a Caption
- 5.10 Table Styling

6: HTML Forms

- 6.1 The <form> Element
- 6.2 Text
- 6.3 Radio Button Input
- 6.4 The Submit Button
- 6.5 Attributes
- 6.6 Grouping Form Data with <fieldset>
- 6.7 The <select> Element
- 6.8 The <option> Element
- 6.9 Visible Values
- 6.10 Allow Multiple Selection
- 6.11 The <textarea> Element
- 6.12 The <datalist> Element

- 6.13 The Output Element
- 6.14 Input Type Password
- 6.15 Input Type Reset
- 6.16 Checkboxes
- 6.17 Input Type Color
- 6.18 Input Type Date
- 6.19 Input Type Email
- 6.20 Input Type Number
- 6.21 Input Type Range
- 6.22 Input Type Search
- 6.23 Input Type Tel
- 6.24 Input Type Time
- 6.25 Input type URL
- 6.26 Input Type Week

7: HTML Blocks and Classes

- 7.1 HTML Blocks Introduction
- 7.2 The <div> Element
- 7.3 The Element
- 7.4 Using the Class Attribute
- 7.5 Using the id Attribute
- 7.6 HTML Iframes

CSS

8: Starting with CSS

- 8.1 What is CSS?
- 8.2 CSS Syntax
- 8.3 CSS Selectors
 - The id Selector
 - The class Selector
- 8.4 Grouping Selectors
- 8.5 CSS Comments
- 8.6 CSS File Inclusion
- 8.7 Multiple Style sheets
- 8.8 Cascading Order

9: CSS Colors

- 9.1 CSS Colors
- 9.2 Background Color
- 9.3 Text Color
- 9.4 Border color
- 9.5 Color Values
- 9.6 RGB Values
- 9.7 HEX Value
- 9.8 HSL Value
- 9.9 Saturation
- 9.10 Lightness
- 9.11 RGBA Value
- 9.12 HSLA Value

10: CSS Background

- 10.1 CSS Backgrounds
 - Background Color
 - Background Image
 - Background-Shorthand Property

11: CSS Borders

- 11.1 CSS Borders
 - Border Style Property
 - Border width Property
 - Border Color Property
 - Border-Individual Sides
 - Border -Shorthand Property
 - Rounded Borders

12: CSS Margins

- 12.1 CSS Margins
- 12.2 Margin Properties
- 12.3 Margin-Shorthand Property
- 12.4 the Auto Value
- 12.5 The Inherit Value

13: CSS Padding

- 13.1 CSS Box Model
- 13.2 CSS Padding Properties
 - Padding-Top
 - Padding-Bottom
 - Padding-Left
 - Padding-Right
 - Padding

14: CSS Text

- 14.1 CSS Text Properties
- 14.2 Types of CSS Text Properties
 - Color Property
 - Text-Align Property

- Text-Decoration Property
- Letter-Spacing Property
- Word-Spacing Property
- Text-Indent Property
- Direction Property
- White-Space Property
- Line-Height Property
- Text-Shadow Property
- Text-Transform Property

15: CSS Font

- 15.1 CSS Font Properties
- 15.2 Types of CSS Font Properties
 - Font-Family Property
 - Font-Style Property
 - Font-Size Property
 - Font-Weight Property
 - Font-Variant Property
 - Font Property

16: CSS Lists

- 16.1 CSS List Properties
- 16.2 Types of CSS List Properties
 - List-Style-Type Property
 - List-Style-Image Property
 - List-Style-Position Property
 - Marker -Offset Property
 - List-Style Property
- 16.3 Styling with Colors

17: CSS Scrollbars

- 17.1 CSS Overflow/Scrollbar Properties
- 17.2 Types of Overflow Properties Values
 - Visible
 - Hidden
 - Scroll
 - Auto
- 17.3 Overflow-x and Overflow-y

18: CSS Tables

- 18.1 CSS Tables Properties
- 18.2 Types of CSS Table Properties
 - Border Property
 - Border-Collapse Property
 - Width and Height Property
 - Vertical Align Property
 - Border-Spacing Property
 - Caption-Side Property
 - Empty-Cells Property
 - Table-Layout Property
 - Border-Bottom Property
 - Zebra-Striped Property
- 18.3 :hover Selector

Project Work

Student have to submit Project on the basis of semester 1 and semester 2 syllabus.

Semester 3

Paper 1: JQuery

1: Introduction to jQuery

- 1.1 What is jQuery
- 1.2 Why jQuery
- 1.3 Add jQuery to Web Page
 - Download the jQuery library from JQuery.com
 - Include jQuery from a CDN
- 1.3 jQuery Syntax Overview

2: jQuery Selectors

- 2.1 The Element Selector
- 2.2 The #id Selector
- 2.3 The .class Selector
- 2.4 The Universal Selector
- 2.5 Multiple Elements Selectors

3: jQuery Events

- 3.1 What are jQuery Events
- 3.2 Types of jQuery Events
 - Mouse Event
 - Keyboard Event
 - Form Event
 - Document/Window Event
- 3.3 jQuery Event Methods

4: jQuery Effects

- 4.1 Types of jQuery Effects

- Display Effects
 - Fading Effects
 - Sliding Effects
 - Other Effects
- 4.2 jQuery Chaining

5: jQuery Interactions

- 5.1 JQ Draggable
- 5.2 JQ Droppable
- 5.3 JQ Resizable
- 5.4 JQ Selectable
- 5.5 JQ Sortable

Paper 2: JavaScript

1: Introduction to Java Script:

- 1.1 What is Java Script ?
- 1.2 Applications of Java Script
- 1.3 Java Script Syntax
- 1.4 First JS Example
- 1.5 Comments in Java Script
 - Type of Comments in Java Script
- 1.6 Adding Java Script Code in HTML Document
 - In the <head> Element
 - In the <body> Element
 - In an External File
- 1.7 Java Script Variables
 - Rules for declaring JS Variables
- 1.8 Scope of JS Variables
- 1.9 Java Script Data Types
 - Types of JS Data Types

2: JS Operators & Control Statements

- 2.1 JS Operators
- 2.2 Types of Operators
 - Arithmetic Operator
 - Assignment Operator
 - Comparison Operator
 - Logical Operator
 - String Operator
 - Conditional Operator
 - Typeof Operator
- 2.3 Control Statements
- 2.4 Types of Control Statements
 - Decision Making Statements
 - Selection Statements
 - Loop Control Statements

3: JS Functions & Objects

- 3.1 Java Script Functions
- 3.2 Defining and Calling a Function
- 3.3 Function Arguments
- 3.4 Function Return Statement
- 3.5 Java Script Objects
- 3.6 Creating Object in Java Script
 - By Object Literals
 - By using new Keyword
 - By using an Object Constructor

4: JS Strings & Arrays

- 4.1 What is String ?
- 4.2 Creating JS String
 - By Using String Literal
 - By Using new Keyword
- 4.3 String Methods
- 4.4 What is Array ?
- 4.5 Create an Array
- 4.6 Array Methods
 - concat()
 - forEach()
 - indexOf()
 - lastIndexOf()
 - join()
 - push()
 - pop()

5: Java Script DOM & Events

- 5.1 What is Dom ?
- 5.2 Levels of DOM
 - DOM Level 0
 - DOM Level 1
 - DOM Level 2
 - DOM Level 3
- 5.3 DOM Objects and their Properties & Methods

- Window Object
 - Document Object
 - History Object
 - Navigator Object
 - Screen Object
 - String Object
- 5.4 DOM/HTML/JS Events
- 5.5 Types of Events

6: Java Script Validation

- 6.1 What is Validation
- 6.2 Validation Input Controls
- 6.3 Examples HTML Form with Validation

7: Java Script Cookies

- 7.1 Cookies
- 7.2 Creating Cookies
- 7.3 Setting Cookies Values
- 7.4 Reading Cookies
- 7.5 Expire(delete) cookies

8: JS Regular Expressions

- 8.1 Introduction to Regular Expressions
 - Common Uses of Regular Expressions
 - Syntax of Regular Expressions
- 8.2 Java Script RegExp Patterns
 - Brackets
 - Meta Characters
 - Quantifiers
- 8.3 Java Script RegExp Modifiers
- 8.4 Java Script RegExp Properties
 - Constructor
 - Global
 - LastIndex
 - Source

9: JS Page Redirect

- 9.1 Page Redirection
- 9.2 Creating Page Redirection
- 9.3 Page Redirection with onClick
- 9.4 Redirect Function
- 9.5 Page Redirect Examples

10: Java Script Animation

- 10.1 JS Animation Introduction
- 10.2 Types of Animation
 - Manual Animation
 - Automated Animation
- 10.3 Rollover with Mouse

11: Java Script Error Handling

- 11.1 Error Handling Introduction
- 11.2 Types of Errors
 - Syntax Errors
 - Runtime Errors
 - Logical Errors
- 11.3 Java Script Error handling Mechanism
- 11.4 Throw Statement

12: Java Script Image Map

- 12.1 Image Map
- 12.2 JS Map Methods
- 12.3 Example of Image Map

Semester 4

Paper 1: Php, MySQL

Php

1: PHP Inroduction

- 1.1 What is PHP
- 1.2 Uses of PHP
- 1.3 Why PHP
- 1.4 Installing PHP
- 1.5 PHP Syntax Overview
 - Basic PHP Syntax
 - Comments in PHP
 - PHP Echo and Print
 - PHP Variables
 - PHP \$ and \$\$

2: PHP Constants & Magic

- 2.1 PHP Constant Types
- 2.2 Creating Constant
- 2.3 Difference b/w Constant & Variable
- 2.4 Magic Constants
 - `__LINE__`
 - `__FILE__`

- `_DIR_`
- `_FUNCTION_`
- `_CLASS_`
- `_METHOD_`

3: PHP Operators

- 3.1 Types of PHP Operators
 - Arithmetic Operators
 - Assignment Operators
 - Comparison Operators
 - Increment/Decrement Operators
 - Logical Operators
 - String Operators
 - Array Operators

4: PHP Data Types

- 4.1 Data Types
- 4.2 Boolean
- 4.3 `is_bool` Function
- 4.4 `is_int()` Function
- 4.5 `is_float` Function
- 4.6 `is_null` Function

5: PHP Control Statements

- 5.1 PHP Decision Making Statements
 - `if..else` Statement
 - `if..elseif..if` Statement
 - `elseif` Statement
 - `Switch` Statement
- 5.2 PHP Loops
 - `For` Loop
 - `While` Loop
 - `Do while` Loop
 - `For Each` Loop
 - `The Break` Statement
 - `The Continue` Statement

6: PHP Arrays and Strings

- 6.1 Arrays
- 6.2 Creating an Array
- 6.3 Types of PHP Arrays
 - Indexed/Numeric Array
 - Associative Array
 - Multidimensional Array
- 6.4 Sorting Arrays
- 6.5 PHP Sort Array Functions
- 6.6 PHP Strings
- 6.7 PHP String Functions

7: PHP Functions & Superglobals

- 7.1 Creating and Calling PHP Function
- 7.2 Argument Passing Techniques
 - Pass by Value
 - Pass by Reference
- 7.3 PHP Recursive Function
- 7.4 PHP Superglobal Variables
 - `$GLOBALS`
 - `$_SERVER`
 - `$_REQUEST`
 - `$_POST`
 - `$_GET`
 - `$_FILES`
 - `$_COOKIE`
 - `$_SESSION`
 - `$_ENV`

8: Form Handling and File Inclusion

- 8.1 Collect Data from Form
 - By `GET` Method
 - By `POST` Method
- 8.2 Form Validation
- 8.3 PHP File Inclusion
 - `The include()` Function
 - `The require()` Function
 - Difference b/w `include()` and `require()`

9 PHP File Handling

- 9.1 File Handling Functions
- 9.2 Opening a File
- 9.3 Reading a File
- 9.4 Writing a File
- 9.5 Closing a File
- 9.6 Deleting a File

10: Cookie and Session

- 10.1 Creating Cookie
- 10.2 Setting Cookie
- 10.3 Deleting Cookie
- 10.4 PHP Sessions
- 10.5 Start PHP Session

- 10.6 Accessing Session Variable Values
- 10.7 Modifying Session Variable
- 10.8 Destroy a Session

11: PHP Exception Handling

- 11.1 What is an Exception
- 11.2 Try, Throw and Catch

12: Mail and File Uploading

- 12.1 Sending Mails
- 12.2 Sending HTML Mails
- 12.3 Creating an Upload Form

MySQL

1: Introduction to MySQL Database

- 1.1 What is MySQL?
- 1.2 Database Queries
- 1.3 Download MySQL Database
- 1.4 MySQL Syntax Overview

2: Working with MySQL Database

- 2.1 Connect to MySQL Database
- 2.2 Create Database
- 2.3 Select Database
- 2.4 Drop Database

3: Working with Tables and Views

- 3.1 Create Table
- 3.2 Alter Table
- 3.3 Truncate Table
- 3.4 Drop Table
- 3.5 MySQL Views

4: MySQL Queries

- 4.1 MySQL Queries Overview
- 4.2 Insert Record
- 4.3 Update Record
- 4.4 Delete Record
- 4.5 Select Record

5: MySQL Clauses and Joins

- 5.1 WHERE Clause
- 5.2 DISTINCT Clause
- 5.3 FROM Clause
- 5.4 ORDER BY Clause
- 5.5 GROUP BY Clause
- 5.6 HAVING Clause
- 5.7 MySQL Joins
 - INNER JOIN
 - LEFT OUTER JOIN
 - RIGHT OUTER JOIN

6: MySQL Conditions

- 6.1 AND Condition
- 6.2 OR Condition
- 6.3 AND OR Condition
- 6.4 LIKE Condition
- 6.5 IN Condition
- 6.6 NOT Condition
- 6.7 IS NULL Condition
- 6.8 IS NOT Condition
- 6.9 BETWEEN Condition

7: MySQL Aggregate Function

- 7.1 `count()` Function
- 7.2 `sum()` Function
- 7.3 `avg()` Function
- 7.4 `min()` Function
- 7.5 `max()` Function
- 7.6 `first()` Function
- 7.7 `last()` Function

8: MySQL Transactions

- 8.1 Transactions Overview
- 8.2 Properties of Transactions
 - Atomicity
 - Consistency
 - Isolation
 - Durability
- 8.3 `COMMIT` and `ROLLBACK` Keywords

Project Work

Student have to submit Project on the basis of semester 1 and semester 2 syllabus.