

Post Graduate Diploma in Computer Applications (PGDCA)

Learning Objectives:

Post Graduate Diploma in Computer Applications (PGDCA) offered by OSOU is an initiation programme for students to gain fundamental knowledge of computer, operating systems, computational techniques, database management and the fundamental principles of programming.

PGDCA is a programme which is designed to teach different functional areas of IT. It helps to prepare graduates for acquiring competence in software development and train human resources for Computer education and research. This programme enrich the students with sound and comprehensive knowledge of widely known programming languages like java, android and python. It provide thorough training in both the theoretical and practical aspects of software and programming skills and emerging techniques.

The program offers specialization in computer science with technical, professional skills along with training to groom future industry professionals

Learning Outcome:

By completion of this course a learner should be able to:

1. Apply knowledge of programming, computing and domain knowledge to solve problems.
2. Analyze real world problems and use available technological solutions to design and implement the same.
3. Identify modern development tools and techniques and use them to develop solutions.
4. Show the technical proficiency in field of IT Application.
5. An ability to handle projects and design and develop IT based Application as per customer requirements.

Duration: 18 Months (one and a half years)

Total Credit: 48

1st Semester (PGDCA)			
Theory			
Course Code	Course Title	(T-L-P)	Credit
CSP-40	Computer Fundamentals	T	02
CSP-41	Office Automation (Word, Excel, Power Point)	T	04
CSP-11	Data Communication & Networking	T	04
Total Theory Credits			10
Project / Laboratory			
CSPL-40	Computer Fundamentals Lab	L	02
CSPL-41	Office Automation Lab	L	02
CSPL-11	Data Communication & Networking Lab	L	02
Total Project / Laboratory Credits			06
TOTAL SEMESTER CREDITS			16

2nd Semester (PGDCA)			
Theory			
Course Code	Course Title	(T-L-P)	Credit
CSP-42	Web Design (HTML, CSS, JavaScript, XML)	T	02
CSP-43	Database Management System	T	02
CSP-44	Application Development Using PHP	T	02
Total Theory Credits			06
Project / Laboratory			
CSPL-42	Web Design Lab	L	02
CSPL-43	Database Management System Lab	L	02
CSPL-44	Application Development Using PHP Lab	L	02
CSPP-01	Project Work	P	04
Total Project / Laboratory Credits			10
TOTAL SEMESTER CREDITS			16

3rd Semester (PGDCA)			
Theory			
Course Code	Course Title	(T-L-P)	Credit
CSP-45	Programming in Java	T	04
CSP-46	Introduction to Android Programming & Python	T	02
CSP-47	Introduction to Multimedia & Photoshop	T	04
Total Theory Credits			10
Project / Laboratory			
CSPL-45	Programming in Java Lab	L	02
CSPL-46	Introduction to Android Programming & Python Lab	L	02
CSPL-47	Introduction to Multimedia & Photoshop Lab	L	02
Total Project / Laboratory Credits			06
TOTAL SEMESTER CREDITS			16
TOTAL PROGRAMME CREDITS			48

** Each Counselling Session for Theory is of 2 hours & Practical is of 3 Hours.*

SEMESTER 1

Computer Fundamentals (CSP-40) (4 cr.)

Block-01(Computer Basic with Number System)

UNIT-01(Introduction of Computer)

Introduction, Definition, Characteristics of Computer, Functions of computer, Application of computer, Classification Of Computer, Generation of Computer, Computer Memory Unit, Components of a computer (Board Overview): Input Unit, Processing unit (memory Unit, Control Unit, ALU), Output Unit, Components of a computer (Detailed Overview): SMPS, Motherboard (North Bridge, South bridge, Chipset, 20 pin ATX power connector, CMOS, Ports and other connected devices)

UNIT-02 (Number System)

Definition, Types of Number System (Decimal, Binary, Octal, Hexadecimal), Number Conversion: Decimal to Binary Conversion, Decimal to Octal Conversion, Decimal to Hexadecimal Conversion), Binary to Octal Conversion, Binary to Hexadecimal, Hexadecimal to Binary, Hexadecimal to Octal, octal to Binary, Octal to hexadecimal, negative number conversion.

Block-02 (Fundamental Concept of Windows and Linux)

Unit-03 (Windows OS)

Introduction, definition, Operating System Concepts and its classification, OS Benefits

Windows: Windows 7, My Computer, Device Manager, Remote Setting, System Protection, Map Network Drive, Control Panel

File and Folder Management in Windows 7: create a directory/folder, How to change to a directory/folder, Creating a file in a directory/folder, Make the file read only, Make the file hidden, Editing a file in a directory/folder, Renaming a file in a directory/folder, How To Delete a file in a directory/folder, Listing the files in the directory, Copy a file from one directory /folder to the other, Deleting all files from a directory/folder, Deleting a directory/folder

Installation Process: Formatting a hard disk and fresh installation of Windows 7.

Unit-04 (Linux OS)

Introduction, Linux Installation Process, Directory Structure, working with Linux, Linux GUI, Linux terminal mode, Trash, Basic Commands in Linux.

File and Folder Management in Linux: create a directory/folder, How to change to a directory/folder, Creating a file in a directory/folder, Make the file read only, Make the file hidden, Editing a file in a directory/folder, Renaming a file in a directory/folder, How To Delete a file in a directory/folder, Listing the files in the directory, Copy a file from one directory /folder to the other, Deleting all files from a directory/folder, Deleting a directory/folder

Office Automation (CSP-41) (6 cr.)

Block-01(MS-Word)

Unit-01(Starting MS Word)

Introduction: Basics of MS-Word, Tools(Status bar, Title bar, Help, Ruler bar, Dialog box launcher, Document area, Zoom control, Quick access bar, View Buttons, File Tab, Ribbon), Tabs(Home, Insert, Page Layout, Reference, Mailings, Review, View, Design, Layout), Creating a new word document, Opening an existing document, Editing and saving a document, Text Alignment, Formatting Text, Find, Advance find and replace, Formatting page, margins, page size, portrait and landscape.

Unit-02 (Symbols and Pictures)

Insertion: Inserting a Picture, Inserting a clip art, inserting shapes, Inserting smart art, Inserting charts, Inserting Equation, Inserting Symbol, Use of Bullets.

Unit-03(Tables)

Tables: Basics, Table Creation, table manipulation: Using and manipulating tables, inserting / deleting of rows and columns, sorting tables.

Unit-04(Working with header, footer)

Working with headers, footers and page numbers, Changing character width and line spacing, Print a document, Copy and moving text between two different documents, Typing more than one language in the same text.

Unit-05 (Shortcuts in MS Word)

Shortcuts: Shortcuts for various activities in MS Word

Block-02(MS-Excel -Vol-I)

Unit-01(Starting MS-Excel)

Introduction, definition, Understand the MS-Excel Screen: Tabs, Entering to MS-Excel, Creating a new excel workbook, creating an excel worksheet, working with Excel worksheet (formulas, Data filtering, Data sorting, Using ranges, Data validation, Using styles, Using themes, Using templates, Using macros).

Unit-02 (Working with Graphics)

Add and delete graphics (Picture, Clip Art, Shapes, Smart Art and Word Art)

Unit-03(Formatting a Worksheet)

Formatting a Worksheet (Adjusting margins, Page orientation, Setting header and footer, Inserting page breaks, Setting background, Freeze panes), Conditional formatting, Format cell (Format Number, Alignment, Font, Border, Fill), Text Decoration.

Unit-04(Charts and other Controls)

Working with Charts (Create, manipulation), Zoom in Out, Special Symbols, Comments (insert, view, Edit, delete, previous and next comment, show comment), Adding Textbox, Undo Changes.

Block-03(MS-Excel -Vol-II)

Unit-05(VLOOKUP and HLOOKUP)

Basic fundamental of VLOOKUP and HLOOKUP with example

Unit-06(Printing, translating and Workbook security)

Printing worksheets, Translate worksheet, Email workbooks, Workbook security (protect worksheet, protect workbook).

Unit-07(Data Table and Pivot Table)

Working with Data tables, Pivot tables and its uses

Unit-08 (keyboard Shortcuts)

Keyboard shortcuts: Working with Basic shortcuts in MS-Excel

Block-04(MS-PowerPoint)

Unit-01

Introduction: Basics of MS-Word, Tools (File tabs, Home, Insert, Design, Transition, Animation, Slide show, Review, View, Format)

Unit-02

Working with Textboxes, Working with Slides, working with slide notes, working with slide bar, working with sections, working with outlines

Unit-03

Features of Power Point: Presentation views, setting presentation background, Cut and Paste Operations, Copy and Paste Operations, Edit PowerPoint Presentation, Content Translation, Set Language Type, Duplicating Content, Special Characters,

Unit-04

Slides Zoom in-out, Font Management and Text Decoration, Paragraph Indentation, Set line spacing, Borders and Shading, Using slide master to create design template, Manage a picture on a slide, Working with shapes on a slide, Adding audio and video to a slide, Working with charts on a slide

Unit-05(Sharing a Presentation)

Convert PowerPoint to PDF, Convert PowerPoint to Video, Create an Image from PowerPoint, Print a PowerPoint, Broadcast PowerPoint presentation.

Data Communication & Networking (CSP-11) (6 cr.)

Block-01

Unit-01(Fundamentals of Data Communication and Computer)

Introduction, Data and Information, Data Communication, Data Representation, Data Transmission Modes, Computer Networks. Network Topology (Bus topology, Star topology, Ring topology, and Mesh topology), Categories of Networks (LAN, MAN, WAN), Protocols, and Standards in Networking

Unit-02(Network Reference Model)

OSI Model, TCP/IP Model, Addressing in TCP/IP.

Unit-03(Transmission Media and Network Devices)

Transmission Media and its Categories, guided Media, Comparison between Twisted Pair Cable, Co-Axial Cable and Optical Fiber, Unguided Media, Network Devices: Hubs, Switches, Bridges, Repeater, Router, Gateway.

Block-02(Physical and Data link Layer Functionalities)

Unit-01(Analog and Digital Signals)

Data and Signals, Analog Signal, Digital Signal, Types of Channels, Transmission of digital Signal, Bandwidth of Signal and Channel

Unit-02(Encoding)

Signal Encoding, Synchronization, Digital data to digital Signal, Analog Data to analog Signal Conversion.

Unit-03(Multiplexing and Switching)

Multiplexing, FDM, TDM, CDM, WDM, SDM, Switching, Circuit Switched and Packet Switched Networks, Comparison between Circuit Switching and Packet Switching

Unit-04(Data Link Layer protocols)

Data Link Layer Services, Common Data Link Layer Protocols, Token Ring / IEEE 802.5, Medium Access Control (MAC), Random Access Protocols, Controlled Access Protocols, Channelization (FDMA, TDMA, CDMA), Physical Addressing, Error Detection, Identifying the Encapsulated Data, Framing, Flow Control, Error Control, Congestion Control

Block-03 (Network Protocols and Security)

Unit-01(Network Layer Protocols)

Network Layer, Internetworking, Internet Protocol (IP), and IPV4, Internet Control Protocol (ARP, RARP, ICMP, and IGMP)

Unit-02 (Transport Layer Protocols)

Transport Services, Introduction to TCP, TCP Segment Header, TCP Services, Introduction to UDP, UDP Segment Structure, UDP Services

Unit-03 (Application Layer Protocols)

Client Server Model, Bootstrapping Protocol (BOOTP), Hypertext Transfer Protocol (HTTP), HTTP Transaction, SMTP (Simple Mail Transfer Protocol), Multipurpose Internet Mail Extensions (MIME), Post Office Protocol (POP), Domain Name System (DNS), Telnet (Terminal Network), File Transfer Protocol (FTP)

Unit-04(Internet and its Services)

History Of The Internet, How Internet Works?, Addressing Scheme in the Internet, Internet Service Providers , World Wide Web (WWW) , Services Provided By The Internet, Applications Of Internet

Unit-05(Network Security)

Types of Security (Application Security, Computer Security, Data Security, Information Security, Network Security), Need of Security, Security Services (Confidentiality, Integrity, Availability, Authentication, Non-Repudiation, Access Control), Firewalls, Malware, Types of Malware, Security Countermeasures, Antivirus Software.

SEMESTER 2

Web Design (HTML, CSS, JavaScript, XML) (CSP-42) (4 cr.)

Block-01 (HTML)

Unit-01

Introduction of HTML, Writing my first HTML Page, Basic tags used in HTML, Elements In HTML, Attributes In HTML, Formatting In HTML, Meta Tags and their use, Commenting a HTML Code, Images and incorporating images, working with Tables, Working with Lists, Working with hyperlinks, Frames and frame management, Working with Iframes, Working with Block elements.

Unit-02

Background images, Coloured text and coloured background, working with fonts, Form designing and Form Management, Using Multimedia inside HTML, Marquee Tag, Headers, Working with Layouts, Role of Tags in Html, Attributes in Html, Event Handling, MIME Media Types.

Block-02 (CSS)

Unit-03

Introduction of CSS, CSS Syntax, CSS Selectors, Ways To Insert CSS, Background image handling, Background colour management using CSS, Text management using CSS, Font management using CSS, Managing Hyperlinks using CSS, Managing Lists using CSS, Designing Tables using CSS, Working with the BOX Model, Designing Borders using CSS, Designing Outline using CSS, Setting Page Margin using CSS.

Unit-04

Padding using CSS, Setting Display Using CSS, Setting Width And Max Width using CSS, Setting Position using CSS, Setting the Float Property using CSS, Inline Block property, Horizontal Alignment in CSS, Working With Combinators, Working with Pseudo-class, working with Pseudo-elements, Creating a navigation bar, Working with images, Working with Attribute selectors.

Block-03 (Java Script)

Unit-05

JavaScript Basics, JavaScript Syntax, Enabling JavaScript in Browsers, Placing JavaScript, Variables, Operators, Conditional Statement(if, if else), Switch case, Loops(while, do while and for loop), Functions, Events and event handling, Cookies, Page Redirection, Dialog Box(Alert, Confirm, prompt), void keyword, Printing webpage using JavaScript

Unit-06

Working with Objects, Numbers, Boolean, String in JavaScript, Arrays and Array Management, Working with Date, Mathematical operations, Regular Expressions, Document Object Model (DOM), Errors and Error Handling, Client Side Validation, Animations in Webpages, Multimedia in Webpages, Image Map.

Database Management System (CSP-43) (4 cr.)

Block-01

Unit-01

Introduction: Data and Information, Record, File, File oriented System, Databases, Database System and its Characteristics, Database Administrator (DBA), Other Users of database, Database Languages (DDL, DML).

Unit-02

Database System Architecture: Schema, Subschema, Instance, Three Tier Architecture of database, Data Independence, Mappings, Types of Database.

Unit-03

Data Models: Data Models and its Types (Object Based Data Models, Record Based Data Models), Constraints.

Unit-04

ER-Model: Entity, Attribute, Keys, Relationship, ER Diagram Notations, Conversion of ER diagram to Relations.

Block-02

Unit-01

Relational database Overview, Relational Languages (Relational Algebra, Relational Calculus), Operation of Relational Algebra, Join, Minus, Translating SQL Queries into Relational Algebra, Division Operation.

Unit-02

Procedural and Non procedural Query Language, Codd's Rule, introduction to SQL, Data Types in SQL, Operator, DQL, DDL, DML, DCL, TCL, Constraints in SQL.

Unit-03 (Functional Dependency)

Database Dependencies (Functional Dependencies, Trivial Functional Dependencies, Full Functional Dependencies, Transitive Dependencies, Multi-valued Dependencies), Importance of Dependencies, Study of Functional Dependency, Basics of Functional Dependency, Axioms Rules, Trivial Functional Dependency, Why FD Is Important In Database Design, Characteristics of FD in Normalization, Functional Dependency Diagrams (FDD), Full Functional Dependency (FFD), Redundant Functional Dependencies, Closures, decomposition, Properties of Decomposition

Unit-04 (Normalization)

Database Normalization, Need of Normalization, Multi-valued Dependencies, Types of Normalization (1NF, 2NF, 3NF, BCNF, 4NF, 5NF)

Block-03

Unit-01 (Transaction processing and concurrency control)

Transaction concepts, concurrency control, locking and Timestamp methods for concurrency control.

Unit-02 (Database Recovery System)

Types of Data Base failure & Types of Database Recovery, Recovery techniques.

Application Development Using PHP (CSP-44) (4 cr.)

Block-01

Unit-01 (Basics of PHP)

Introduction, Algorithm, Flowchart, Program, Programming Languages and its generation, OOPs Concept.

Unit-02 (Introduction to PHP)

PHP Basic (installing Process of PHP (XAMPP)), Structure of PHP program, Write the first PHP program, Syntax, Variables, Constants, Echo and Print Command, Data Type, Array Data Type, Types of Array in PHP, Multi dimension Array, Object data Type.

Operations: Basics and types of operation in PHP.

Block-02(PHP)

Unit-03 (Control Statement in PHP)

Condition Statement (if Statement, if else statement, if else if else statement, Switch Statement), **Loop** (While, do While, for and for each Loop). Super global Variable.

Unit-04 (Form Management)

Form Design: get and Post method, Working with Textbox, Text Area, Password, Check Box, Radio Buttons, Drop down Box, File, Submit Buttons, Reset, Button, data, date Time, Email, search, Tel, URL etc.

Working with \$Globals, \$Server, \$ENV, \$SESSION, \$COOKIE with Example. Form Validation, Form Navigation

Block-03(Advance PHP)

Unit-01 (Object Oriented Concept in PHP)

Introduction, Basics of OOP in PHP, Pillars of OOPS, Understanding Classes and Objects, PHP Class Properties and Methods, Static, Constants, Constructor and destructor, Magic Methods in PHP, Inheritance in PHP, Interface, Abstract class, Final, Polymorphism

Unit-02 (File management and Exception Handling)

Introduction, what is File, File Formats supported by PHP, File Operations, File Permission. Error Handling in PHP, Exception Handling, try... catch and throw, Top Level Exception Handler, User Defined Exception Handler

Unit-07 (Database Connectivity in PHP)

Introduction, Introduction to MySQL, What can MySQL do? Why MySQL use with PHP, Features of MySQL, Communication between PHP and MySql Server: Create a connect to the MySql server (mysql, mysqli (MySQL improved, pdo (PHP Data Object)), Create Database and Tables in MySql, Insert Data into MySql Server, Mysql SELECT Statement, Update MySql Records, Delete MySql Records, Example database access from Webpage.

Project Work (CSPP-01) (4 cr.)

SEMESTER 3

Programming in Java (CSP-45) (6 cr.)

Block-01(Introduction to Java)

UNIT-01

Introduction, History of Java, Edition of Java, What is Java, Why Learn Java, Languages and Paradigms, The Basics of Java, Java Features, OOPS Concepts, Evolution of Java, How Java program works, Difference Between C++ and JAVA, Java and Internet, Java and World Wide Web, Java Support System, Java Environment, Components of JDK, Components of API (Application programming Interface)

UNIT-02

Java Program Structure, Simple Java Program, Tokens, Reserved Keywords, Identifiers, Literals, classification of Java Statements, JVM Architecture, How Does the JVM Work, Constants and Variables, Variables, Declaration of Variables, Scope of Variable, Data type, symbolic Constant, Default Values, Type Casting, Command line arguments

UNIT-03

Operators, Different types of Operators, Unary Operator, The Arithmetic Operator, The Relational Operators, The Logical Operator, Conditional Operators, The Assignment Operators, The Bitwise Operators, Special Operators, Instance of Operator, Dot operator, new operator, Precedence of Java Operators

Keyboard input programming: Using InputStreamReader class, Scanner class, CLA, Console class

UNIT-04

Sequence Control, Implicit and Explicit Sequence Control, Control Statements, Selection Statements, if-Then Statement, If-Then-Else Statement, Switch Statement, Repetition Statements, While Statement, Do-While Loop Statements, for Loop Statements, Java Jump Statements, Break Statement, Continue Statement, Return Statements, Labeled Loop

Block-02(OOPs Concept in Java)

UNIT -01

Arrays And Strings: Introduction, Overview of Array , Need of Array, Types of Array, One dimensional Array, Two-Dimensional Array, Multidimensional Array, Strings , Concatenation of Strings, Methods for String Comparison, Methods for searching Strings, Changing the case of characters, String Buffer, String Builder

UNIT-02

Classes: Introduction, Defining a Class, Adding Variables, Adding Methods, Creating Objects, Accessing Class members, Call-by-value and call by reference, Recursion, Access Control Constructors, Method over Loading, Constructor Overloading, Garbage Collection, finalize() method, this keyword, Static Members, Nesting of Methods

UNIT-3

Inheritance: Inheritance, Single Inheritance, Multilevel Inheritance, Multiple Inheritance, Hierarchical Inheritance, Using Super, Constructor -Order of Execution in Inheritance, Overriding methods, Final variables and methods, Final Classes, Abstract methods and Classes, Containership, Visibility Control

UNIT-4

Wrapper Classes And Vectors: Introduction, Wrapper Classes, Number Class, Byte class, Short class, Integer class, Long class, Converting Numbers to and from Strings, Float class, Double class, Character class, Boolean class, Vectors, Creating a vector

Block-03(Advanced Concept in Java)

UNIT -01

Interface & Packages: Introduction, Interfaces, Defining interface, Implementing interface, Accessing interface method, Accessing interface variable, Extending interfaces, Packages, System packages, Using system packages, User defined packages, Adding class to a package, Accessing and using package

UNIT-02

Exception Handling: Introduction, Exceptions, Using try& catch, multiple catch clauses, Finally, Throw, Throws

UNIT-03

Applets: Introduction, Local & remote applets, Applet vs. applications, Writing applets, Life cycle of an applet, Creating source code of applet, Creating an executable applet, Creating applet tag, Adding applet tag to html, Running the applet, Detailed form of applet tag, Passing parameters to applet, Aligning the display, HTML tags, Getting input from user.

UNIT-04

Multithreading in Java:

Introduction, Multithreading, Uses of Multithreading, The Main Thread, Creating and Running Threads, How to terminate a Threads, Multiple Task using Single Threads, Multiple Task using Multiple Threads, Multiple Task using Multiple Threads and Single Object, Threads Synchronization, Threads Priority, Thread Methods, Threads Communication, Threads Life Cycle

Block-04 (Graphics Programming & Java Database Connectivity)

UNIT -01

AWT: AWT Classes window fundamentals, component, container, panel, Window, Frame, Canvas, Creating a frame window in an Applet, working with Graphics, Control Fundamentals, Layout managers, Handling Events by Extending AWT Components.

UNIT-02

Swing: J applet, Icons & Labels, Text fields, Buttons, Combo boxes, Tabbed panes, Scroll panes, Trees, Tables.

UNIT-03

JDBC: Fundamentals, Type I, Type II, Type III, Type IV drivers.

Introduction to Android Programming & Python (CSP-46) (6 Cr.)

Block-01(Introduction to Android)

UNIT-01

Introduction, Android as a popular mobile Platform, History of Android, Features of Android, Comparison of Mobile OS, Device that run Android as OS

UNIT-02

Android Architecture, Types of mobile applications, Application Fundamentals

UNIT-03

Activity, Activity Life cycle, Activity Life cycle, Methods, Managing Activities in the Application, Android process states

Block-02(Android Development Environment)

UNIT-01

Reasons for Android Development, Android Development Platforms, Features and Tools, Android Platform version and specific features, Python for Mobile App Development.

UNIT-02

Configuring Android Development Environment (Android Studio and Eclipse): download and complete installation process of JDK, Eclipse and Android Studio, Dealing with backward compatibility

UNIT-03

Creating first Android application, Creating a new Android project in Eclipse, Creating a new Android project in Android Studio, create a new Android virtual Device in both IDEs (Eclipse and Android Studio), Creating and saving launch configuration, Running and debugging the app, Running on the actual device

Block-03(Introduction to Python)

UNIT-01

Introduction to Python, History of Python and versions, Features of Python programming, Application of Python, Download, installation and run the first Program.

UNIT-02

Variables, Expressions and Statements: Values and types, Variables, keywords, Operators and operands, Expressions and statements, Interactive mode and script mode, Order of operations, Comments in Programming, Debugging.

Selection Structure (if... else), Iteration structures (while, for), break, continue and pass Statements

UNIT-03

Functions: Introduction, Why Functions? How to write a function definition in Python, Flow of execution, Functions with arguments, Void Functions, Functions with return statements, Built-in functions, Type Conversion functions, Math functions.

UNIT-04

Strings: Introduction, Strings in Python, String Operations, String methods, Parsing strings.

Introduction to Multimedia & Photoshop (CSP-47) (6 Cr.)

Block-01(Introduction to Computers & Networks)

UNIT-01

Multimedia Hardware

UNIT-02

Multimedia Software

UNIT-03

Multimedia operating systems

UNIT-04

Multimedia communication systems

Block-02(Content Development & Distribution)

UNIT-01

Desktop publishing (Coral Draw, Photoshop, Page maker)

UNIT-02

Multimedia Animation &Special effects (2D/3D animation, Flash)

UNIT-03

Social Networking &Publishing (Blogging, Facebook, YouTube, Instagram etc.)

UNIT-04

Content Distribution Systems (CD/DVD, Internet, Radio, Television)

Block-03(Fundamentals of Photoshop)

UNIT-01 (Introduction to Interface and layers)

Getting Started, What Is Adobe Photoshop CS6, Carriers in Adobe Photoshop, Starting Adobe Photoshop CS6.

Interface Layout (An Overview): File, Creating a New Adobe Photoshop File.

Layers discussed In Depth: Photoshop File Comprised of Various Layers, Hide a Layer an Adobe Photoshop File, Duplicate a Layer in Adobe Photoshop File, Delete a Layer in Adobe Photoshop File. Grouping Layers, How to Ungroup Layers, Link Layers, Unlink Layers, Layer Effects, Layer Mask, create A New Fill or Adjustment Layer, How to create a Pattern.

UNIT-02 (Selection Tools)

Move Tool, Marque Tools, Lasso Tools, Quick Selection Tool, Magic Wand Tool

UNIT-03 (Image correction Tools)

Crop Tools, Slice Tool, Color Picker Tool, Color Sampler Tool, Ruler Tool, Note Tool, Spot Healing Brush Tool, Patch Tool ()

Block-04(Essential Tools)

UNIT-01 (Image manipulation Tools-I)

Content Aware Move, Red Eye Tool, Brush, Pencil, Color Replacement, Color Mixer Tool, Clone stamp tool, Pattern Stamp, History Brush Tool, Art History Tool

UNIT-02 (Image manipulation Tools-II)

Eraser Tool, Background Eraser Tool, Magic Eraser Tool, The Paint Bucket Tool, The Gradient Tool, Blur Tool, Sharpen Tool, Smudge Tool, Dodge Tool, The Burn Tool, Sponge Tool, Pen Tool, Free Form Pen Tool, Add An Anchor Point Tool, Delete An Anchor Point Tool, Convert Point Tool

UNIT-03 (Text and Image manipulation)

Text Tools, Path Selection Tool, Direct selection tool, Working with Shapes, Hand Tool, Rotate View, Zoom Tool, Switch Foreground and Background color, Quick Mask Mode, Screen Modes