Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA (CA) -- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.vishwanath jha
Subject: Digital Marketing **(SUBJECT CODE-301)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1: E-Commerce** 1.1 Introduction 1.2 Understanding Internet Marketing 1.3 Search Engine Optimization 1.4 Search Engine Marketing 1.5 Email Marketing 1.6 Digital Display Marketing
		3	**Chapter 2 : Introduction to New Age Media (Digital) Marketing** 2.1 What is Digital Marketing 2.2 Digital vs. Real Marketing 2.3 Digital Marketing Channels 2.4 Types of Digital Marketing(Overview)-Internet Marketing ,Social Media Marketing, Mobile Marketing
		4	**Chapter 3: Creating Initial Digital Marketing Plan** Creating Initial Digital Marketing Plan 3.1 Content management 3.2 SWOT analysis: Strengths, Weaknesses, Opportunities, andThreats
2	NOV	1	**DIWALI VACATION**
		2	3.3 Target group analysis EXERCISE: Define a target group **Chapter 4: Marketing using Web Sites** 4.1 Web design 4.2 Optimization of Web sites 4.3 MS Expression Web EXERCISE: Creating web sites, MS Expression
		3	**Chapter 5: Search Engine Optimization** 5.1 SEO Optimization 5.2 Writing the SEO content EXERCISE: Writing the SEO content
		4	**Chapter 6: Customer Relationship Management** 6.1 Introduction to CRM 6.2 CRM platform 6.3 CRM models EXERCISE: CRM strategy
3	DEC	1	**Chapter 7: Social Media Marketing** 7.1 Understanding Social Media Marketing 7.2 Social Networking (Facebook, Linkedin, Twitter, etc.) Social Media (Blogging, Video Sharing - Youtube, Photosharing – Instagram, Podcasts) 7.3 Web analytics - levels
		2	7.4 Modes of Social Media Marketing 7.4.1 Creating a Facebook page Visual identity of a Facebook page , Types of publications, Facebook Ads , Creating Facebook Ads , Ads Visibility 7.4.2 Business opportunities and Instagram options,Optimization of Instagram profiles , Integrating Instagram with a Web Site and other social networks ,Keeping up with posts
		3	7.4.3 Business tools on LinkedIn Creating campaigns on LinkedIn , Analyzing visitation on LinkedIn
		4	7.4.4 Creating business accounts on YouTubeYouTube ,Advertising , YouTube Analytics 7.4.5 E-mail marketing E-mail marketing plan , E-mail marketing campaign analysis , Keeping up with conversions
4	Jan-22	1	7.5 Digital Marketing tools: Google Ads, FaceBook Ads, Google Analytic, Zapier, Google Keyword Planner EXERCISE: Social Media Marketing plan. EXERCISE: Making a Facebook page and Google Ads
		2	**Chapter 8: Digital Marketing Budgeting** 8.1 Resource planning 8.2 Cost estimating
		3	8.3 Cost budgeting 8.4 Cost control

Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA (CA)-- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.shilpa thakur

Subject: Data Structure **(SUBJECT CODE-302)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1:Basic Concept and Introduction to Data Structure** 1.1 Pointers and dynamic memory allocation 1.2 Algorithm-Definition and characteristics 1.3 Algorithm Analysis -Space Complexity -Time Complexity - Asymptotic Notation Introduction to Data structure 1.4 Types of Data structure
		3	1.5 Abstract Data Types (ADT) Introduction to Arrays and Structure 1.6 Types of array and Representation of array 1.7 Polynomial - Polynomial Representation - Evaluation of Polynomial Addition of Polynomial 1.8 Self Referential Structure & **LAB WORK**
		4	**Chapter 2 : Linear data structures** **2**.1 Introduction to Arrays - array representation 2.2 Sorting algorithms with efficiency - Bubble sort, Insertion sort, Merge sort, Quick Sort, Selection Sort 2.3 Searching techniques –Linear Search, Binary search **LAB WORK**
2	NOV	1	**DIWALI VACATION**
		2	**Chapter 3 : Linked List** 3.1 Introduction to Linked List 3.2 Implementation of Linked List – Static & Dynamic representation **LAB WORK**
		3	3.3 Types of Linked List - Singly Linked list(All type of operation) - Doubly Linked list (Create , Display) - Circularly Singly Linked list (Create, Display) - Circularly Doubly Linked list (Create, Display) 3.4 Generalized linked list – Concept and Representation **LAB WORK**
		4	**Chapter 4: Stacks** 4.1 Introduction 4.2 Representation- Static & Dynamic 4.3 Primitive Operations on stack
3	DEC	1	4.4 Application of Stack 4.5 Conversion of Infix, prefix, postfix , Evaluation of postfix and prefix 4.6 Simulating recursion using stack LAB WORK
		2	**Chapter 5: Queues** 5.1 Introduction 5.2 Representation - Static & Dynamic 5.3 Primitive Operations on Queue
		3	5.4 Circular queue, priority queue 5.5 Concept of doubly ended queue **LAB WORK**
		4	**Chapter 6: Trees** 6.1 Concept & Terminologies 6.2 Binary tree, binary search tree 6.3 Representation – Static and Dynamic 6.4 Operations on BT and BST – create, Insert, delete, , counting leaf, non-leaf & total nodes ,
4	Jan-22	1	6.5 Tree Traversals (preorder, inorder, postorder) 6.6 Application - Heap sort 6.7 Height balanced tree- AVL trees- Rotations, AVL tree examples. **LAB WORK**
		2	**Chapter 7: Graph** 7.1 Concept & terminologies 7.2 Graph Representation – Adjacency matrix, adjacency list, inverse Adjacency list, adjacency multilist, orthogonal list
		3	7.3 Degree of Graph 7.4 Traversals – BFS and DFS 7.5 Applications – AOV network – topological sort, AOE network – critical Path & LAB WORK

Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA(CA) -- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.amina qadri
Subject: Software Engineering **(SUBJECT CODE-303)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1: Introduction to System Concepts** 1.1 Definition 1.2 Basic Components 1.3 Elements of the System 1.4 Types of System 1.5 System Characteristics & **LAB WORK**
		3	**Chapter 2: Introduction to Software Engineering** 2.1 Definition of Software 2.2 Characteristics of Software 2.3 Definition of Software Engineering
		4	2.4 Need for Software Engineering 2.5 Mc Call's Quality factors 2.6 The Software Process 2.7 Software Product and Process 2.8 V& V Model & **LAB WORK**
2	NOV	1	**DIWALI VACATION**
		2	**Chapter 3 : Software Development Life Cycle** 3.1 Introduction 3.2 Activities of SDLC 3.3 A Generic Process Model 3.4 SDLC
		3	3.5 Waterfall Model 3.6 Incremental Process Models 3.7 Prototyping Model 3.8 Spiral Model **LAB WORK**
		4	**Chapter 4: Requirement Engineering** 4.1 Introduction 4.2 Requirement Elicitation 4.3Requirement Elaboration
3	DEC	1	4.4 Requirement Gathering 4.5 Feasibility study 4.6 Fact Finding Techniques 4.7 SRS Format **LAB WORK**
		2	**Chapter 5: Analysis And Design Tools** 5.1 Decision Tree and Decision Table 5.2 Data Flow Diagrams (DFD) (Up to 2nd level) 5.3 Data Dictionary 5.4 Elements of DD
		3	5.5 Advantages and Disadvantages of DD 5.6 Input and Output Design 5.7 Structured Design Concepts **LAB WORK**
		4	5.8 Structure Chart 5.9 Coupling and Cohesion 5.10 Compulsory Case Studies on above topics **LAB WORK**
4	Jan-22	1	**Chapter 6 : Software Testing** 6.1 Definition 6.2 Software testing Process
		2	6.3 Unit Testing 6.4 Integration Testing 6.5 System Testing **LAB WORK**
		3	**Chapter 7: Software Maintenance and Software Re-Engineering** 7.1 Maintenance definition and types 7.2 Software reengineering
		4	7.3 Reverse Engineering 7.4 Restructuring and forward Engineering. **LAB WORK**

Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA (CA)-- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.shilpa thakur
Subject: Angular JS **(SUBJECT CODE-304)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1: AngularJS Core Concepts:** 1.1 What is AngularJS? 1.2 Difference between Javasript and Angular JS
		3	1.3 Advantages of Angular 1.4 AngularJS MVC Architecture 1.5 Introduction to SPA
		4	1.6 Setting up the environment 1.7 First App using MVC architecture **LAB WORK**
2	NOV	1	**DIWALI VACATION**
		2	**Chapter 2 : AngularJS Directives and Expressions:** 2.1 Understanding ng attributes ng-app, ng-init, ng-model, ng-controller, ng-bind, ng-repeat, ng-show, ng-readonly, ng-disabled, ng-if, ng-click **LAB WORK**
		3	2.2 Expression and Data Binding 2.3 Working with directives **LAB WORK**
		4	**Chapter 3: AngularJS Modules, Controller, View and Scope:** 3.1 Angular Modules 3.2 Angular Controller
3	DEC	1	3.3 Angular View 3.4 Scope hierarchy **LAB WORK**
		2	**Chapter 4 : Filter, Forms and Ajax Filters** 4.1 Built-in filters - upper case and lower case filters, date ,currency and number formatting ,orderBy, filter ,custom filter,
		3	4.2 Angular JS Forms – Working with AngularJS forms, model binding, form controller ,Using CSS classes, form events ,
		4	4.3 Ajax implementation using $http
4	Jan-22	1	**LAB WORK**
		2	**Chapter 5: Dependency Injection, Services** 5.1 What is dependency injection? 5.2 Understanding services
		3	5.3 Using built-in service 5.4 Creating custom service, 5.5 Injecting dependency in service **LAB WORK**

Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA (CA) -- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.sunita kanadikar
Subject: PHP **(SUBJECT CODE-304)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1: PHP Basics** 1.1 Setting up a development environment 1.2 Variables, numbers and strings
		3	1.3 Calculations with PHP 1.4 Using Arrays
		4	LAB WORK
2	NOV	1	**DIWALI VACATION**
		2	**Chapter 2 : Control Structures and Loops** **2.1 Conditional Statements**
		3	2.2 Using Loops for Repetitive tasks 2.3 Combing Loops and Arrays
		4	LAB WORK
3	DEC	1	**Chapter 3 : Functions, Objects and Errors** **3.1 PHP's Built-in functions** **3.2 Creating Custom functions** **3.3 Passing Values by Reference** **3.4 Understanding Objects**
		2	LAB WORK
		3	**Chapter 4: Working with Forms** 4.1 Building a Form 4.2 Processing a Form's Data 4.3 Differences between POST and GET 4.4 Preserving User Input
		4	LAB WORK
4	Jan-22	1	**Chapter 5: More with Forms** 5.1 Dealing with checkboxes and radiobuttons 5.2 Retrieving values from lists 5.3 Validating and restricting data 5.4 Sending Email **LAB WORK**
		2	**Chapter 6: Storing and Protecting Data** 6.1 Setting and Reading Cookies 6.2 Protecting Online Files 6.3 Understanding Session Variables
		3	**Chapter 7: MySQL Database Overview** 7.1 phpMyAdmin Overview 7.2 Using a MySQL Database 7.3 Reading and Writing Data **LAB WORK**

Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA (CA) -- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.shilpa thakur
Subject: Block Chain **(SUBJECT CODE-305)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1: Introduction To Blockchain** 1.1 Digital Trust 1.2 Asset 1.3 Transactions 1.4 Distributed Ledger Technology 1.5 Types of network 1.6 Components of blockchain or DLT 1.7 Ledger 1.7.1. Blocks 1.7.2. Blockchain **LAB WORK**
		3	1.8 PKI and Cryptography 1.8.1. Private keys 1.8.2. Public keys 1.8.3. Hashing 1.8.4. Digital Signature
		4	1.9. Consensus 1.9.1. Byzantine Fault 1.9.2. Proof of Work 1.9.3. Poof of Stake 1.10. Security 1.10.1.DDos 1.11 Cryptocurrency 1.12.Digital Token **LAB WORK**
2	NOV	1	**DIWALI VACATION**
		2	**Chapter 2 : How Blockchain Works** 2.1 How Blockchain Works 2.2. Structure of Blockchain 2.3.Block 2.4. Hash 2.5. Blockchain 2.6. Distributed 2.7. Lifecycle of Blockchain
		3	2.8. Smart Contract 2.9. Consensus Algorithm 2.10 Proof of Work 2.11 Proof of Stake 2.12 Practical Byzantine 2.13 Fault Tolerance 2.14 Actors of Blockchain **LAB WORK**
		4	2.15 Blockchain developer 2.16 Blockchain operator 2.17 Blockchain regulator 2.18 Blockchain user 2.19 Membership service provider 2.20 Building A Small Blockchain Application **LAB WORK**
3	DEC	1	**Chapter 3 : Introduction to Bitcoin** 3.1 Currency 3.2 Double Spending 3.3 Cryptocurrency 3.4 P2P Payment Gateway 3.5 Wallet 3.6 Mining
		2	**Chapter 4: Ethereum** 4.1.Ethereum network 4.2. EVM 4.3.Transaction fee 4.4.Mist 4.5.Ether, gas
		3	4.6.Solidity - Smart contracts 4.7.Truffle 4.8.Web3 4.9.Design and issue Cryptocurrency 4.10. Mining 4.11. DApps 4.12. DAO
		4	**LAB WORK**
4	Jan-22	1	**Chapter 5: Introduction To Hyperledger Fabric V1.1** 5.1. Introduction to Hyperledger 5.2 What is Hyperledger 5.3 Why Hyperledger 5.4 Where can Hyperledger be used
		2	5.5 Hyperledger Architecture 5.6 Membership 5.7 Blockchain 5.8 Transaction 5.9 Chaincode 5.10 Hyperledger Fabric 5.11 Features of Hyperledger
		3	**LAB WORK**

Pragnya education trust's
Pragnya college of management & computer studies,
Handewadi, Pune-411060

BBA (CA) -- Semester: III

Teaching Plan 2021-2022

Name of Faculty: prof.sunita kanadikar
Subject: Big data **(SUBJECT CODE-305)**

Sr.No.	Month	Week	Topic
1	OCT	2	**Chapter 1: INTRODUCTION TO BIG DATA** 1.1 Introduction to Big Data 1.2 Types of Digital Data
		3	1.3 Big Data Analytics 1.4 Application of Big data
		4	**LAB WORK**
2	NOV	1	**DIWALI VACATION**
		2	**Chapter 2 : INTRODUCTION TO DATA SCIENCE** 2.1 Basics of Data Analytics
		3	2.2 Types of Analytics – 2.2.1 Descriptive, 2.2.2 Predictive, 2.2.3 Prescriptive 2.2.4 Statistical Inference
		4	2.3 Populations and samples 2.3.1 Statistical modelling, 2.3.2 Probability 2.3.3 Distribution 2.3.4 Correlation 2.3.5 Regression
3	DEC	1	**LAB WORK**
		2	**Chapter 3 : INTRODUCTION TO MACHINE LEARNING** 3.1 Basics of Machine Leaning 3.2 Supervised Machine Learning 3.2.1 K- Nearest-Neighbours, 3.2.2 Naïve Bayes 3.2.3 Decision tree 3.2.4 Support Vector Machines
		3	3.3.1 Cluster analysis 3.3.2 K means 3.3.3 EM Algorithm 3.3.4 Association Rule Mining 3.3.5 Apriori algorithms
		4	3.4 Regression Analysis 3.4.1 Linear Regression 3.4.2 Nonlinear Regression **LAB WORK**
4	Jan-22	1	**Chapter 4: DATA ANALYTICS WITH R/ WEKA MACHINE LEARNING**
		2	4.1 Introduction 4.2 Data Manipulation
		3	**LAB WORK**