

## **BVOC- SOFTWARE DEVELOPMENT**

### **Course Outcomes**

#### **BVOC –SOFTWARE DEVLOPEMENT (SEM –I)**

**Course Name: Fundamentals of Computers and Information Technology**

**Course Code: BVSD 1.1**

1. To understand the concept of input and output devices of Computers and how it works and recognize the basic terminology used in computer programming
2. To gain knowledge of computer equipment, including both hardware and software.
3. To be able to identify the components of a personal computer system
4. To be able to demonstrate window and menu commands and how they are used
5. To be able to navigate and search through the internet

**Course Name: Web Designing**

**Course Code: BVSD 1.2**

1. To learn how does web works really, what makes web sites work.
2. To learn simple and impressive design techniques, from basics till advanced to focus on goal oriented and user centric designs.
3. To be able to create web elements like buttons, banners & Bars and of course complete UI designs.
4. To be able to design forms and validations for your website.
5. To be able to writing valid and concise code for webpages.

**Course Name: Introduction to Database Management System**

**Course Code: BVSD 1.3**

1. To Describe the fundamental elements of database management systems.
2. To Explain the basic concepts of data model, entity-relationship model and SQL.
3. To use SQL the standard language of database management systems.
4. To understand the functional dependencies and design of the database.
5. To Improve the database design by normalization.

**Course Name: Problem Solving Technique and C programming**

**Course Code: BVSD 1.4**

1. To be able to Design, implement, test, debug, and document programs in C.
2. To understand how to write and use functions, how to implement function calls, and parameter passing options.
3. To understand and use the common data structures typically found in C programs — namely arrays, strings.
4. To learn the basic programming constructs they can easily switch over to any other language in future
5. To be able to develop logics which will help them to create programs, applications in C.

## **BVOC –SOFTWARE DEVLOPEMENT (SEM –II)**

### **Course Name: Communication Skills**

#### **Course Code: BVSD 2.1**

1. Students will be able to learn about the parameters of communication for developing practical approach to be implemented further.
2. Students will be able to grab opportunities through various tasks to be done for written and oral communication skills enhancement.
3. Students will be able to shape their personality with the help of different skills of interactions that can be used at organisational level.
4. Students will be able to represent themselves by means of subjective practical skills that can be used at global level.
5. Students will be able to develop their fluency in speaking, reading and writing English language.

### **Course Name: ASP.NET with C#**

#### **Course Code: BVSD 2.2**

1. Students will be able to learn about create a Web form with server controls.
2. Students will be able to understand Separate page code from content by using code-behind pages, page controls, and components.
3. Students will be able to learn about display dynamic data from a data source by using Microsoft ADO.NET and data binding.
4. Students will be able to learn about able to understand use of C# basics, Objects and Types, Inheritance.
5. Students will be able to learn about to develop, implement and creating Applications with C#.

### **Course Name: PHP**

#### **Course Code: BVSD 2.3**

1. Students will be able to learn about installation, configuration, and administer PHP, web server, and database tools and extensions.
2. Students will be able to learn apply Object-Oriented Design principles in PHP.
3. Students will be able to learn connection to databases to fetch, store, and update persistent information.
4. Students will be able to learn to avoid SQL injection attacks using parameter binding and input sanitization.
5. Students will be able to learn store business logic in the database using stored procedures in addition Test and debug object-oriented PHP scripts.

### **Course Name: Graphics and Multimedia**

#### **Course Code: BVSD 2.4**

1. Students will be able to learn and understand technical aspect of multimedia/graphics systems.
2. Students will be able to learn various multimedia/graphics software for academic as well as organizational purpose.
3. Students will be able to learn understand the standards available for different text, audio and vedio application.
4. Students will be able to learn design and development of various multimedia/graphics systems applicable in real time.

5. To develop multimedia/graphics application and analyse the performance of the same.

### **BVOC –SOFTWARE DEVLOPEMENT (SEM –III)**

#### **Course Name: Computer Networks**

##### **Course Code: BVSD 3.1**

1. To be able to understand the importance of computer network and the network topology.
2. To understand the Concept OSI layers
3. To know the concepts of protocols, network interfaces, and design/performance issues in local area networks and wide area networks.
4. To know the contemporary issues in networking technologies.
5. To know the network tools and network programming

#### **Course Name: Operating Systems**

##### **Course Code: BVSD 3.2**

1. To learn the mechanisms of OS to handle processes and threads and their communication
2. To be able to describe process management and concepts of threading, multitasking.
3. To gain knowledge on distributed operating system concepts that includes architecture, Mutual exclusion algorithms, deadlock detection algorithms and agreement protocols.
4. To be able to understand representation of file system interface.
5. To be able to differentiation of various scheduling algorithms and identify the reasons of deadlock and their remedial measures in an operating system.

#### **Course Name: Data Structure using C**

##### **Course Code: BVSD 3.3**

1. Understand the concept of Dynamic memory management, data types, algorithms.
2. Understand basic data structures such as arrays, linked lists, stacks and queues.
3. Abl to solve problem involving graphs, trees and heaps
4. To be able to choose appropriate data structure as applied to specified problem definition.
5. To be able to handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures

#### **Course Name: Relational Database Management System**

##### **Course Code: BVSD 3.4**

1. To understand the concept of relational database system (Oracle) by writing SQL using the system.
2. To be able to design principles for logical design of databases, including the E - R method and normalization approach.
3. To know the basic issues of transaction processing and concurrency control
4. To understand the different issues involved in the design and implementation of a relational database management system.
5. To develop an understanding of essential RDBMS concepts such as: database security, integrity, concurrency etc.

## **BVOC –SOFTWARE DEVLOPEMENT (SEM –IV)**

### **Course Name: Design and Analysis of Algorithms**

#### **Course Code: BVSD 4.1**

1. Students will be able to understand the asymptotic performance of the Algorithms.
2. Students will be able to determine the efficiency of the algorithms by considering space and time trade-off.
3. Students will be able to learn the concept of various Algorithm design and apply the same to the real world problems.
4. Students will be able to learn various sorting algorithms and to compare and Contrast their performance.
5. Students will be able to learn appropriate algorithm for solving problems.

### **Course Name: Object Oriented Programming with C++**

#### **Course Code: BVSD 4.2**

1. Students will be able to learn basic of object oriented methodology as opposed to procedural methodology.
2. Students will be able to learn to develop both object oriented programs as well as procedural programs using classes and objects.
3. Students will be able Understand how to produce object-oriented software using C++
4. Students will be able to learn how to apply the major object-oriented concepts to implement object oriented programs in C++, encapsulation, inheritance and polymorphism
5. Students will be able to learn the relative merits of C++ as an object oriented programming language

### **Course Name: Management and Organizational Behavior**

#### **Course Code: BVSD 4.3**

1. Students will be able to learn about the parameters of management for developing practical approach to be implemented further in organizational scenario.
2. Students will be able to grab opportunities through various case studies to be solved for managerial skills enhancement.
3. Students will be able to shape their personality with the help of different leadership and behavioural skills that can be used at organisational level.
4. Students will be able to tackle critical situations and represent themselves by means of subjective practical skills that can be used at global level.
5. Students will be able to develop their inbuilt associative techniques of problem identification and solution finding by giving them managerial current scenarios examples.

**Course Name: Management Information Systems**

**Course Code: BVSD 4.4**

1. Students will be able to develop skills of leadership and decision making in achieving business competitive advantage.
2. Students will be able to understand the knowledge regarding information system and their application in organization.
3. Students will be able to understand the managerial issues relating to information systems and help them identify and help them identify and evaluate various options in MIS.
4. Students will be able to Analyze and synthesize business information and systems to facilitate evaluation of strategic alternatives.
5. Students will be able to learn about various tools/techniques of MIS for problem solving.

## **BVOC –SOFTWARE DEVELOPEMENT (SEM –V)**

### **Course Name: Java Programming**

#### **Course Code: BVSD 5.1**

1. To be able to write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE or other Integrated Development Environments (IDEs).
2. To be able to write, compile and execute Java programs using object oriented class structures with parameters, constructors, and utility and calculations methods, including inheritance, test classes and exception handling.
3. To be able to explain the benefits of JAVA's Exceptional handling mechanism compared to other Programming Language
4. To be able to evaluate user requirements for software functionality required to decide whether the Java programming language can me et user requirements.
5. To be able to propose the use of certain technologies by implementing them in the Java programming language to solve the given problem.

### **Course Name: Software Engineering**

#### **Course Code: BVSD 5.2**

1. To understand the nature of software development and software life cycle process models.
2. To understand concepts and principles of software design and user-centric approach and principles of effective user interfaces.
3. To be able to develop skills for cost estimation for software development and understand the software risks.
4. To be able to apply the knowledge of various software testing methods in software development process.
5. To be able to employed in industry, government, or entrepreneurial endeavours to demonstrate professional advancement through significant technical achievements such as system analyst, software test or, designer etc.

### **Course Name: Data Warehousing and Mining**

#### **Course Code: BVSD 5.3**

1. To understand the concept of data warehouse and its architecture.
2. To understand the functionalities of data mining.
3. To understand the concept of data pre-processing methods.
4. To Understand the concept of Clustering, Classification and Prediction algorithms and its real time applications.
5. To understand the data mining techniques.

### **Course Name: E-commerce & M-commerce**

#### **Course Code: BVSD 5.4**

1. Analyse the impact of E-commerce on business models and strategy.
2. Gain a comprehensive understanding of the E-Commerce landscape, current and emerging business models, and the technology and infrastructure underpinnings of the business.
3. Discuss legal issues and privacy in E-Commerce.
4. Develop an understanding on how internet can help business grow.
5. Gain an understanding on the importance of security, privacy, and ethical issues as they relate to E-Commerce.

## **BVOC –SOFTWARE DEVLOPEMENT (SEM –VI)**

### **Course Name: Mobile Application Development using Android**

#### **Course Code: BVSD 6.1**

1. Students will be able to learn Install and configure Android application development tools.
2. Student will be able to use built-in widgets and components.
3. student will be able to work with the database to store data locally.
4. Students will be able to learn save state information across important operating system events.
5. Students will be able to learn apply Java programming concepts to Android application development.

### **Course Name: Advanced Java Programming**

#### **Course Code: BVSD 6.2**

1. Students will be able to learn concepts of advanced programming and practice on reusing components.
2. Students will be able to learn why Servlets are the cornerstone of Java's Web platform.
3. Students will be able to learn Enterprise Java Beans, RMI and simple Client- Server Application using RMI.
4. Students will be able to learn how JSP is built on the Servlet architecture.
5. Students will be able to generate an application based upon the concepts of java & advance java.

### **Course Name: Network and Information Security**

#### **Course Code: BVSD 6.3**

1. Learn and analyse and evaluate the security threats and related security standards
2. Investigate attacks, IDS .technical exploits and router attacks and "Trap and Trace" computer networks.
3. To understand the concepts of protocols, network interfaces and design, performance issues in networks
4. To introduce concepts related to distributed computing systems
5. To understand the fundamentals of secret and public key cryptography

### **Course Name: Software Testing & Quality Management**

#### **Course Code: BVSD 6.4**

1. Students will be able to learn systematic approach to the development and maintenance of software.
2. Students will be able to learn about methods and tools of testing and maintainace of software's.
3. Students will be able to learn how to develop software, reduce cost of software and how to maintain quality of software.
4. Students will be able to understand and discuss the benefits, needs and techniques of software testing, configuration management and software metrics.
5. Students will be able able to discuss different software quality factors models.