SREE NARAYANA GURU COLLEGE OF COMMERCE
(LINGUISTIC MINORITY INSTITUTION)
RE-ACCREDITED BY NAAC (GRADE-'B'-CGPA 2.45) [2019-2024]
AFFILIATED TO UNIVERSITY OF MUMBAI & RECOGNISED BY UGC-u/s 2(f)&12B
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PROGRAMME OUTCOMES

Programme Code:**42300003**	**Name of the Programme: B.Sc. Information Technology (BSCIT)**

Programme Outcomes:
After successful completion of the programme, graduates will be able to;

PO1: Think critically and creatively to develop technological solutions for various problems.

PO2:Excel in IT careers or pursue further education in IT or related fields.

PO3:Manage complex IT projects with consideration of human,financial and environmental factors.

PO4:Work effectively as a part of a team to achieve a common stated goal.

PO5:Adhere to the highest standards of business ethics.

PO6:Communicate effectively with a range of audiences, both technical and non-technical.

PO7:Develop an aptitude to engage in continuing professional development.

PO8: master recommendation engines, time series modeling, and practical machine learning principles and algorithms.

PO9: Gain an in-depth understanding of data structure and data manipulation.

PO10:Understand cloud computing and leverage it for scalable, cost-effective solutions.

COURSE OUTCOMES

SEMESTER I	
COURSE CODE : USIT101	COURSE TITLE: Programming Principles with C

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Develop the logical ability. (3)*

CO2: Write different programmes using C programming. (3)*

CO3:Generate different solutions for the given problem. (6)*

CO4:Handle the errors and find a suitable solution. (3)*

CO5: Debug the code.(3)*

SEMESTER I	
COURSE CODE : USIT1P1	COURSE TITLE: Programming Principles with C Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Develop the logic required for programming.(3)*

CO2: Describe loops and take decisions using programs.(2)*

CO3:Make use of operators.(3)*

CO4:Illustrate difficult concepts using programming examples.(3)*

CO5: Discussion of the relevant concepts using a program.(2)*

SEMESTER I	
COURSE CODE : USIT102	COURSE TITLE: Digital Logic and Applications

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the basics of logic in digital electronics.(2)*

CO2: Interpret and assess number systems and the conversions of number systems.(2)*

CO3:Analyze the boolean expressions and reduce the expression to the minimum.(4)*

CO4:Design simple logic circuits using tools such as Boolean Algebra and Karnaugh Mapping.(6)*

CO5: Understand the state of a memory cell and its types using flip-flops.(2)*

SEMESTER I	
COURSE CODE : USIT1P2	COURSE TITLE: Digital Logic and Applications Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Construct basic and universal logic circuits.(6)*

CO2: Verify the functionalities of various IC's. (3)*

CO3:Design circuits using the K-maps minimization technique. (6)*

CO4:Design and test Encoders, Decoders, Multiplexers and Demultiplexers.(6)*

CO5: Design and develop logic for Registers, Counters and its applications.(6)*

SEMESTER I	
COURSE CODE : USIT103	COURSE TITLE: Fundamentals DBMS

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand fundamental elements of relational database management system.(2)*

CO2: Understand relational data models, ER models, database design, relational algebra, and SQL.(2)*

CO3:Design ER-models to represent simple database application scenarios.(6)*

CO4:Convert ER models to relational tables, populate databases, and write SQL queries.(3)*

CO5: Improve the database design by normalization.(3)*

SEMESTER I	
COURSE CODE : USIT1P3	COURSE TITLE: Fundamentals DBMS Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Design ER Model.(6)*

CO2: Design Database. (6)*

CO3:Normalize Databases.(3)*

CO4:Design database schema for a given application and apply normalization.(6)*

CO5: Acquire skills in using SQL commands for data definition and data manipulation.(3)*

SEMESTER I	
COURSE CODE : USIT104	Computer Logic and Discrete Structure

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Use logical notations.(3)*

CO2: Perform logical proofs.(3)*

CO3:Apply recursive functions and solve recurrence relations.(3)*

CO4:Use graphs and trees.(3)*

CO5: Apply basic and advanced principles of counting.(3)*

SEMESTER I	
COURSE CODE : USIT1P4	COURSE TITLE: Computer Logic and Discrete Structure Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Find computational solution to various discrete mathematical structures.(3)*

CO2: Use commands of SCILAB.(3)*

CO3: Use functions of SCILAB. (3)*

CO4:Understand basic principles of counting using SCILAB.(2)*

CO5: Understand the principles of counting using SCILA.(2)*

SEMESTER I	
COURSE CODE : USIT105	COURSE TITLE: Technical Communication Skills

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Analyze, synthesize, and apply strategies to solve communication problems effectively.(4)*

CO2: Learn workplace communication and the importance of team collaboration.(2)*

CO3:Learn about different technical communication, such as presentations and interviews.(2)*

CO4:Understand and apply the art of written communication in writing reports, proposals.(2)*

CO5: Understand ground rules of ethical communication and MIS.(2)*

SEMESTER I	
COURSE CODE : USIT1P5	COURSE TITLE: Technical Communication Skills Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Use different forms of digital media for effective communication.(3)*

CO2: Create technical documents and format existing documents for effective communication.(6)*

CO3:Learn to use graphical tools for better visualization.(2)*

CO4: Create business presentation effectively.(6)*

CO5: Visualize the data from pictorial representations.(3)*

SEMESTER II	
COURSE CODE : USIT201	COURSE TITLE: Object Oriented Programming

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the concept of OOPs, feature of C++ language.(2)*

CO2: Apply various types of Datatypes, Operators, Conversions while designing the program.(3)*

CO3:Apply the concepts of Classes &Objects, friend function, constructors & destructors in

program design.(3)*

CO4:Design & implement various forms of inheritance, String class, calling base class constructors.(6)*

CO5: Analyze operator overloading, runtime polymorphism, Generic Programming.(4)*

SEMESTER II	
COURSE CODE : USIT2P1	COURSE TITLE: Object Oriented Programming Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Utilize C++ characteristics in software design and development.(3)*

CO2: Describe object-oriented techniques and illustrate how C++ implements them.(2)*

CO3:Employ C++ to demonstrate practical skill at developing object-oriented solutions.(3)*

CO4:Design and develop object-oriented software using best coding practices.(6)*

CO5: Use common software patterns effectively in object-oriented design.(3)*

SEMESTER II	
COURSE CODE : USIT202	COURSE TITLE: Microprocessor Architecture

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the basic concepts of Micro Computer Systems.(2)*

CO2: Understand the architecture and hardware aspects of 8085.(2)*

CO3:Write assembly language programs in 8085. (3)*

CO4:Design elementary aspects of Micro Controller based systems.(6)*

CO5: Interface peripherals using Micro Controller.(3)*

SEMESTER II	
COURSE CODE : USIT2P2	COURSE TITLE: Microprocessor Architecture Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Apply concepts of 8085 to single and Multiple Memory Locations. (3)*

CO2: Apply concepts of micro-processor register operations. (3)*

CO3: Implement assembly language programs.(3)*

CO4:Make use of Shift registers 8 & 16 bits.(3)*

CO5: Apply the knowledge of Flash Magic in embedded controllers.(3)*

SEMESTER II	
COURSE CODE : USIT203	COURSE TITLE: Web Programming

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Analyze working of Internet.(4)*

CO2: Gain an insight into designing web pages.(2)*

CO3:Use different ways of styling web pages using CSS.(3)*

CO4:Implement basic and complex functionalities of JavaScript in a web page.(3)*

CO5: Employ PHP Scripts to execute dynamic tasks on a web page.(3)*

SEMESTER II	
COURSE CODE : USIT2P3	COURSE TITLE: Web Programming Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Design static web pages using Hyper Text Markup Language (HTML). (6)*

CO2: Enhance the look of web pages by implementing CSS.(3)*

CO3:Collect information from the user with HTML Forms.(3)*

CO4:Design interactive web-pages using client-side script (JavaScript).(6)*

CO5: Implement Document Object Models and events in web pages using JavaScript.(3)*

SEMESTER II	
COURSE CODE : USIT204	COURSE TITLE: Numerical and Statistical Methods

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand numerical techniques to find the roots of non-linear equations.(2)*

CO2: Find solutions for linear equations.(3)*

CO3:Understand the difference between operators and the use of interpolation.(2)*

CO4:Understand numerical differentiation and integration.(2)*

CO5: Find Numerical solutions of ordinary and partial differential equations.(3)*

SEMESTER II	
COURSE CODE : USIT2P4	COURSE TITLE: Numerical and Statistical Methods Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Achieve proficiency in Scilab's interface. (3)*

CO2: Utilize Scilab to solve equations, perform matrix operations, and implement numerical algorithms. (3)*

CO3:Use Scilab's plotting functions to visualize numerical data accurately.(3)*

CO4:Implement various numerical methods and optimization techniques efficiently using Scilab.(3)*

CO5: Enhance documentation and collaboration skills through effective use of Scilab.(3)*

SEMESTER II	
COURSE CODE : USIT205	COURSE TITLE: Green Computing

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the concept of Green IT and problems related to it. (2)*

CO2: Understand different standards for Green IT.(2)*

CO3:Understand how power usage can be minimized in technology.(2)*

CO4:Learn about how the way of work is changing. (2)*

CO5: Understand the concept of recycling.(2)*

SEMESTER II	
COURSE CODE : USIT2P5	COURSE TITLE: PL/SQL

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the basics of PL/SQL. (2)*

CO2: Use of the control and conditional statement in PL/SQL.(3)*

CO3:Apply sequences and cursor in PL/SQL.(3)*

CO4:Know the concept of stored procedure and functions.(2)*

CO5: Create the triggers and packages in PL/SQL.(6)*

SEMESTER III	
COURSE CODE : USIT301	COURSE TITLE: Python Programming

Course Outcomes: After successful completion of the course, students will be able to;

CO1:Understand Python programming variables, expressions, loops, and conditions.(2)*

CO2: Apply functions, strings, lists, tuples, and dictionaries in Python.(3)*

CO3:Create GUI forms and add widgets.(6)*

CO4:Use MySQL to store data.(3)*

CO5: Apply advanced Python programming skills across various domains.(3)*

SEMESTER III	
COURSE CODE : USIT3P1	COURSE TITLE: Python Programming Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand Python programming variables, expressions, loops, and conditions.(2)*

CO2: Create GUI forms and add widgets.(6)*

CO3:Describe loops and make decision using programs.(2)*

CO4:Understand difficult concepts related to programming languages using python programming. (2)*

CO5: Understand real world problems using python programmming.(2)*

SEMESTER III	
COURSE CODE : USIT302	COURSE TITLE: Data Structures

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Identify and distinguish data structure classification, data types.(1)*

CO2: Identify the complexities.(1)*

CO3:Implement array, linked list, stack and queue.(3)*

CO4:Implement trees, various hashing techniques, and graph for various applications.(3)*

CO5: Compare various sorting and searching techniques.(4)*

SEMESTER III	
COURSE CODE : USIT3P2	COURSE TITLE: Data Structures Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Implement Array, Linked list and Stack data structures in various domains.(3)*

CO2: Implement Tree and Queue data structures and use their operation.(3)*

CO3:Apply Hashing techniques, Symbol Table and Graph Algorithms appropriately.(3)*

CO4:Handle sorting and searching. (3)*

CO5: Do pattern matching on various data structures.(3)*

SEMESTER III	
COURSE CODE : USIT303	COURSE TITLE: Computer Networks

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Identify various data communication standards.(1)*

CO2: Understand different topologies and terminologies.(2)*

CO3:Describe how signals are used to transfer data and communication aspects between nodes.(2)*

CO4: Configure IP addresses using the TCP/IP protocol suite.(3)*

CO5: Use different application layer protocols.(3)*

SEMESTER III	
COURSE CODE : USIT3P3	COURSE TITLE: Computer Networks Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Use Cisco networking technologies.(3)*

CO2: Diagnose and troubleshoot common network issues. (3)*

CO3:Identify data communication standards and their networking implications.(1)*

CO4:Configure IPv4 and IPv6 addresses using TCP/IP.(3)*

CO5: Develop skills in DHCP configuration and troubleshooting.(3)*

SEMESTER III	
COURSE CODE : USIT304	COURSE TITLE: Operating Systems

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand role of Operating System and Computer System. (2)*

CO2: Use the different types of Operating System and their services.(3)*

CO3:Configure scheduling algorithms and synchronization techniques for improved computer system performance.(3)*

CO4:Apply virtual memory concepts.(3)*

CO5: Use and manage secondary memory.(3)*

SEMESTER III	
COURSE CODE : USIT3P4	COURSE TITLE: Operating Systems Systems Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand basic commands of the Linux operating system.(2)*

CO2: Understand file systems, directories, and IO device interfacing in operating systems.(2)*

CO3:Apply CPU scheduling algorithms to manage tasks.(3)*

CO4:Understand methods of prevention and recovery from a system deadlock.(2)*

CO5: Apply memory management methods and allocation policies.(3)*

SEMESTER III	
COURSE CODE : USIT305	COURSE TITLE: Applied Mathematics

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Solve the matrix operations, identify the linear dependence and independence of a vectors.(3)*

CO2: Understand various forms and operations of a complex number.(2)*

CO3:Compute Laplace transforms, inverse Laplace transforms, and solve differential equations using Laplace transforms.(3)*

CO4: Evaluate multiple integrals in Cartesian and polar coordinates, and reorder integrals as needed.(5)*

CO5: Apply integration methods to calculate the areas and volumes of solids.(3)*

SEMESTER III	
COURSE CODE : USIT3P5	COURSE TITLE: Mobile Programming Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Develop mobile apps for Android and iOS.(6)*

CO2:Design user-friendly mobile interfaces with a focus on layout, navigation, and responsiveness.(6)*

CO3:Use techniques for data storage and management in mobile apps.(3)*

CO4: Learn mobile app security best practices.(2)*

CO5: Master testing and debugging mobile apps.(3)*

SEMESTER IV	
COURSE CODE : USIT401	COURSE TITLE: Core Java

Course Outcomes: After successful completion of the course, students will be able to;

CO1:Understand the architecture of Java.(3)*

CO2: Identify data types, control flow, classes, inheritance, exceptions and event handling. (1)*

CO3:Use object-oriented concepts for problem solving in real-life applications. (3)*

CO4:Build GUI program. (6)*

CO5: Create event-driven programs using Java.(6)*

SEMESTER IV	
COURSE CODE : USIT4P1	COURSE TITLE: Core Java Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Solve real world problems using OOP techniques.(3)*

CO2: Understand the use of abstract classes.(2)*

CO3: Solve problems using the java collection framework and I/o classes. (3)*

CO4: Develop multi-threaded applications with synchronization.(6)*

CO5: Design GUI based application.(6)*

SEMESTER IV	
COURSE CODE : USIT402	COURSE TITLE: Introduction to Embedded Systems

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Differentiate between general purpose and embedded systems.(4)*

CO2: Understand the characteristics and quality attributes of embedded systems.(2)*

CO3:Use different types of sensors appropriately.(3)*

CO4:Design and develop embedded systems.(6)*

CO5: Learn Bus Communication in processors, Input/output interfacing. (2)*

SEMESTER IV	
COURSE CODE : USIT4P2	COURSE TITLE: Introduction to Embedded Systems Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand embedded systems concepts.(2)*

CO2: Gain practical skills in interfacing sensors and actuators with micro-controllers. (3)*

CO3: Understand embedded systems.(2)*

CO4: Apply embedded systems software tools.(3)*

CO5: Apply skills in developing embedded systems solutions for real-world applications.(3)*

SEMESTER IV	
COURSE CODE : USIT403	COURSE TITLE: Computer Oriented Statistical Techniques

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Calculate and apply measures of central tendency and dispersion for both grouped and ungrouped data.(3)*

CO2: Calculate the moments, skewness and kurtosis by various methods. (3)*

CO3:Apply discrete and continuous probability distributions to various business

Problems.(3)*

CO4:Perform hypothesis tests, calculate confidence intervals, and understand p-values. (3)*

CO5: Apply simple linear regression and correlation model to real life examples.(3)*

SEMESTER IV	
COURSE CODE : USIT4P3	COURSE TITLE: Computer Oriented Statistical Techniques Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Analyze data using R, Python (NumPy, Pandas, SciPy), or SPSS, focusing on manipulation, visualization, and interpretation.(4)*

CO2: Grasp experimental design and ANOVA to analyze data and draw conclusions. (4)*

CO3:Apply regression and correlation analysis techniques to effectively model relationships between variables and make predictions.(3)*

CO4:Apply statistical quality control methods to improve product or process quality.(3)*

CO5: Apply statistical techniques practically to analyze data and make informed decisions.(3)*

SEMESTER IV	
COURSE CODE : USIT404	COURSE TITLE: Software Engineering

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand software engineering. (2)*

CO2: Apply software engineering principles. (3)*

CO3:Explore methods for verifying and validating software. (3)*

CO4:Create software using different software development models. (6)*

CO5: Understand the concept of project management. (2)*

SEMESTER IV	
COURSE CODE : USIT4P4	COURSE TITLE: Software Engineering Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Solve complex engineering problems using principles of engineering, science, and mathematics.(3)*

CO2: Design the software using different diagrams.(6)*

CO3:Communicate effectively with a range of audiences.(3)*

CO4: Utilize modern techniques, skills, and tools essential for software engineering practice.(3)*

CO5: Gain hands-on experience in software development using industry-standard tools and methods.(3)*

SEMESTER IV	
COURSE CODE : USIT405	COURSE TITLE: Computer Graphics and Animation

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the basics and applications of computer graphics and various graphics systems.(2)*

CO2: Compare various algorithms for scanning conversion and filling of basic objects. (2)*

CO3:Apply geometric transformations to graphics objects, including composite forms.(3)*

CO4:Use clipping methods to extract scenes and transform them for graphic displays.(3)*

CO5: Apply 3D scene projection and surface detection techniques for displaying on 2D screens. (3)*

SEMESTER IV	
COURSE CODE : USIT4P5	COURSE TITLE: Computer Graphics and Animation Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Apply advanced illumination models to render projected objects in 2D scenes effectively.(3)*

CO2: Understand fundamental computer graphics algorithms and data structures.(2)*

CO3:Apply and analyze clipping algorithms and transformations in 2D images.(3)*

CO4:Apply viewing transformations, explain projection and hidden surface algorithms.(3)*

CO5: Understand light interaction with 3D scenes.(2)*

SEMESTER V	
COURSE CODE : 53701	COURSE TITLE: Software Project Management

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the Project Lifecycle.(2)*

CO2: Identify and Mitigate Risks.(1)*

CO3:Control Budget and Costs. (3)*

CO4:Evaluate Projects and Learn Lessons. (5)*

CO5: Manage Project Scope. (3)*

SEMESTER V	
COURSE CODE : USIT5P1	COURSE TITLE: Project Dissertation

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand customers' needs.(2)*

CO2: Design systems to meet customer requirements.(6)*

CO3: Implement customer-centric system designs.(3)*

CO4:Conduct project evaluation and extracting lessons. (3)*

CO5: Effectively manage project scope.(3)*

SEMESTER V	
COURSE CODE : 53702	COURSE TITLE: Internet of Things

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Use IoT sensors and actuators, acquiring practical skills in data acquisition, processing, and control.(3)*

CO2: Understand the components and architecture of IoT systems.(2)*

CO3:Integrate IoT systems with APIs, databases, and web applications to enhance functionality.(3)*

CO4: Apply machine learning tools for IoT data analysis.(3)*

CO5:Apply edge computing techniques to analyze sensor data in real-time, facilitating rapid decision-making in IoT applications.(3)*

SEMESTER V	
COURSE CODE : USIT5P2	COURSE TITLE: Internet of Things Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Achieve proficiency in device connectivity to the internet.(3)*

CO2:Collect data through embedded sensors.(3)*

CO3:Gain expertise in inter-device communication and central system interaction.(3)*

CO4: Automate processes based on data collected.(3)*

CO5: Understand wide-ranging applications across industries.(2)*

SEMESTER V	
COURSE CODE : 53703	COURSE TITLE: Advanced Web Programming

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Integrate databases efficiently with Entity Framework.(3)*

CO2: Deploy applications in IIS and Azure.(3)*

CO3:Develop RESTful APIs with ASP.NET Web API.(6)*

CO4:Use ASP.NET MVC for scalable web apps.(3)*

CO5: Implement secure authentication with ASP.NET Identity.(3)*

SEMESTER V	
COURSE CODE : USIT5P3	COURSE TITLE: Advanced Web Programming Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Gain proficiency in modern web technologies through hands-on experience.(2)*

CO2: Develop expertise in database integration techniques.(3)*

CO3:Acquire skills in API development and integration.(3)*

CO4:Understand best practices in web security.(2)*

CO5: Gain real-world project experience in advanced web programming.(3)*

SEMESTER V	
COURSE CODE : 53705	COURSE TITLE: Linux System Administration

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Use Linux command-line interface proficiently for effective system management. (3)*

CO2: Understand Linux file systems and permissions.(2)*

CO3:Install, Update, and Manage Software Packages. (3)*

CO4:Configure and maintenance of system settings.(3)*

CO5: Master Shell Scripting for automation.(3)*

SEMESTER V	
COURSE CODE : USIT5P5	COURSE TITLE: Linux System Administration Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand networking concepts and configurations. (2)*

CO2: Gain expertise in user and group management.(3)*

CO3:Implement security measures and best practices.(3)*

CO4:Troubleshoot common system issues.(3)*

CO5: Manage system resources such as CPU, memory, and storage.(3)*

SEMESTER V	
COURSE CODE : 53706	COURSE TITLE: Enterprise Java

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand Enterprise Java technologies.(2)*

CO2: Develop web applications.(6)*

CO3: Develop skills in data persistence and object-relational mapping (ORM).(3)*

CO4:Develop skills in application deployment and management.(3)*

CO5: Achieve proficiency in testing and quality assurance. (3)*

SEMESTER V	
COURSE CODE : USIT5P6	COURSE TITLE: Enterprise Java Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Master Java EE technologies.(3)*

CO2: Integrate databases proficiently. (3)*

CO3:Develop competence in deployment and management.(3)*

CO4:Optimize scalability and performance effectively.(3)*

CO5: Apply real-world project experience. (3)*

SEMESTER VI	
COURSE CODE : 88701	COURSE TITLE: Software Quality Assurance

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Use various testing techniques, including black box and white box testing.(3)*

CO2: Understand industry standards and regulations related to software quality.(2)*

CO3:Analyze and report software defects effectively.(4)*

CO4:Understand the importance of quality metrics and metrics-driven decision making.(2)*

CO5: Develop a mindset for continuous improvement in software quality processes.(3)*

SEMESTER VI	
COURSE CODE : USIT6P1	COURSE TITLE: Project Implementation

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Implement projects using required programming languages effectively.(3)*

CO2: Identify and manage risks affecting project success.(1)*

CO3:Implement mitigation strategies as needed.(3)*

CO4:Ensure that project deliverables meet quality standards and requirements.(3)*

CO5: Finalize project activities.(3)*

SEMESTER VI	
COURSE CODE : 88702	COURSE TITLE: Security in Computing

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the fundamental principles and concepts of computer security. (2)*

CO2: Identify common security threats and vulnerabilities in computer systems, networks, and applications.(1)*

CO3:Analyze and evaluate different cryptographic techniques and their applications in securing data and communications.(4)*

CO4:Demonstrate proficiency in designing, implementing, and evaluating secure computer systems and networks. (3)*

CO5: Apply risk assessment methodologies to identify and prioritize security risks in computing environments.(3)*

SEMESTER VI	
COURSE CODE : USIT6P2	COURSE TITLE: Security in Computing Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Perform security audits to identify vulnerabilities.(3)*

CO2: Configure and deploy security controls effectively.(3)*

CO3:Respond to security incidents through forensic analysis.(3)*

CO4:Implement secure coding practices in software development.(3)*

CO5: Collaborate in team-based simulations of cyber attacks.(3)*

SEMESTER VI	
COURSE CODE : 88703	COURSE TITLE: Business Intelligence

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the business goals and objectives supported by BI.(2)*

CO2: Identify data sources for BI initiatives.(1)*

CO3:Integrate data into a central warehouse or lake, ensuring consistency, accuracy, and accessibility.(3)*

CO4:Design and implement data models for efficient querying and multidimensional analysis.(6)*

CO5: Train users on BI tools to encourage adoption and maximize value.(3)*

SEMESTER VI	
COURSE CODE : USIT6P3	COURSE TITLE: Business Intelligence Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Identify Data Sources.(1)*

CO2: Integrate data.(3)*

CO3: Clean and transform the data. (3)*

CO4: Do data modeling. (3)*

CO5: Create dashboards and reports.(6)*

SEMESTER VI	
COURSE CODE : 88704	COURSE TITLE: Principles of Geographic Information Systems

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the fundamental principles and concepts of Geographic Information Systems.(2)*

CO2: Use GIS software to apply, analyze, and visualize spatial data.(3)*

CO3:Acquire spatial data from satellite imagery, GPS devices, and remote sensing.(3)*

CO4:Understand cartography principles for effective spatial communication through maps and visualizations.(2)*

CO5: Apply advanced GIS tools to solve complex spatial problems.(3)*

SEMESTER VI	
COURSE CODE : USIT6P4	COURSE TITLE: Principles of Geographic Information Systems Practical

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Develop proficiency in acquiring and preparing spatial data.(3)*

CO2: Apply spatial analysis techniques for problem-solving.(3)*

CO3:Aquire skills in designing and creating visually compelling maps.(3)*

CO4:Collect and integrate field data.(3)*

CO5: Do problem-solving through real-world project-based learning scenarios.(3)*

SEMESTER VI	
COURSE CODE : 88706	COURSE TITLE: Service Management

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand IT service management frameworks. (2)*

CO2: Understand the fundamental concepts, principles, and frameworks of Information Technology Service Management (ITSM).(2)*

CO3: Align IT services with business objectives and strategies effectively.(3)*

CO4: Implement ITSM processes effectively for efficient service delivery and support.(3)*

CO5: Learn ITSCM and disaster recovery to maintain business continuity.(2)*

SEMESTER VI	
COURSE CODE : USIT6P6	COURSE TITLE: Advanced Mob. Programming

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Gain proficiency in Android and iOS development. (3)*

CO2: Gain expertise in data persistence and management for mobile apps.(3)*

CO3:Implement advanced features like push notifications, geolocation, and multimedia.(3)*

CO4:Understand mobile security and performance optimization techniques.(2)*

CO5: Apply their proficiency in Android and iOS development.(3)*

* Note: Numbers given in the brackets () refer to learning levels of the revised Blooms' Taxonomy (2001) as follows:
(1): Remember,(2): Understand, (3): Apply (4): Analyse (5): Evaluate (6): Create

B.Sc IT Coordinator

IQAC Coordinator

Principal

Principal