

Program Name	Program Outcome
<b>B. Sc. (Information Technology)</b>	PO1: To develop the necessary analytical abilities for developing computer-based solutions for real life problems. PO2: To inculcate quality practices in Information Technology solutions development. PO3: To imbibe professional skills in students for their future roles. PO4: To prepare necessary knowledge base for potential research and development in Information Technology. PO5: To help students' build-up a successful career in Information Technology and allied fields.



<b>Program Name and Semester</b>	<b>Bachelor of Science in Information Technology (B. Sc. IT) Semester -I</b>
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<b>Course Name</b>	<b>Course Outcome</b>
Programming Principles with C	<p>CO1: Understand the logic building by using algorithm and flowchart.</p> <p>CO2: Demonstrate the use different Operators, Expressions, Data Input and output functions in C programming.</p> <p>CO3: Apply conditional, looping statement and functions in various problems.</p> <p>CO4: Understand how to use Arrays and different storage classes.</p> <p>CO5: Demonstrate the concept of pointers and implement various real-life applications by using structure.</p> <p>CO6: Develop confidence for self-education and skills required for computer language</p>
Digital Logic and Applications	<p>CO1: Students will be able to understand and examine the structure of various number systems and its storage and application in computer system.</p> <p>CO2: Students will be able to identify basic requirements for a design application and formulate most suitable solution.</p> <p>CO3: Students will be able to understand, analyse and design various combinational circuits.</p> <p>CO4: Students can identify and prevent various hazards and timing problems in a sequential circuit design.</p> <p>CO5: Students will be able to apply various algorithms for designing digital circuits.</p>
Fundamentals of Database Management Systems	<p>CO1: To understand the basics of data &amp; database, different model of representing data.</p> <p>CO2: To understand the conceptual design &amp; modelling it as per the project requirements.</p> <p>CO3: To construct the database and normalize to make it fully relational considering dependencies.</p> <p>CO4: To understand how to retrieve data using a query language.</p> <p>CO5: To learn about transaction and concurrency control for better extraction of the data from a database.</p>
Computational Logic and Discrete Structures	<p>CO1: Students will be able to understand set theory concept and apply various methods to find discrete probabilities.</p> <p>CO2: Students will understand the meaning of Recursive function and methods to solve such functions.</p> <p>CO3: Students will be able to differentiate between functions and relations.</p> <p>CO4: Students will be able to apply basic and advanced principles of counting.</p> <p>CO5: Students will be able to understand the concepts of Graphs and trees and their applications in computers.</p>



<b>Course Name</b>	<b>Course Outcome</b>
Technical Communication Skills	CO1: To introduce aspects of communication essential for business communication. CO2: Train learners in written aspects of organizational communication i.e., business messages and documents requisite for career building. CO3: To enhance learners' oral communication and prepare them for business interviews and professional group communication. CO4: To familiarize them with specific communication needs of an organization. CO5: To enable use of ICT and communication aids.



<b>Program Name and Semester</b>	<b>Bachelor of Science in Information Technology (B. Sc.IT) Semester -II</b>
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<b>Course Name</b>	<b>Course Outcome</b>
Object Oriented Programming	<p>CO1: Differentiate between POP and OOP.</p> <p>CO2: Build C++ application programs using OOP principles and proper program structuring.</p> <p>CO3: Demonstrate the concepts of polymorphism.</p> <p>CO4: Implement Inheritance and learn code reusability.</p> <p>CO5: Design Templates and File Handling.</p>
Fundamentals of Microprocessor and Microcontrollers	<p>CO1: To understand 8085 Microprocessor Architecture, pin diagram and pin functions of IC 8085. And the difference between microprocessor and CPU.</p> <p>CO2: To increase Students' proficiency in assembly language.</p> <p>CO3: To get practical experience in programming.</p> <p>CO4: To know how to work with microcontrollers and to learn 8051 Microcontroller.</p> <p>CO5: To control computer system components through hardware and software interrupts.</p>
Numerical Methods	<p>CO1: Understand various Engineering problems, several types of errors which occur in real life and representation of any function as a series of non-linear coefficients.</p> <p>CO2: Determine the roots of any polynomial and estimate the future as well as intermediate value depending on the pre-requisite values (Past values).</p> <p>CO3: Determine the solution of multiple equations and integrate any linear or non-linear functions within the given intervals.</p> <p>CO4: Prediction of the future values depending on the present as well as past values and to optimize the given situation.</p> <p>CO5: Mapping of a given event into another domain and understanding several types of distribution to be used in probability.</p>
Web Applications	<p>CO1: To understand various terminologies of Internet, simple application of HTML5.</p> <p>CO2: To design web pages using advanced HTML5.</p> <p>CO3: To design dynamic web pages using JavaScript.</p> <p>CO4: To develop simple, responsive web pages using PHP.</p> <p>CO5: To build web pages using PHP &amp; MySQL.</p>



<b>Course Name</b>	<b>Course Outcome</b>
Green IT	CO1: To understand the relation and impact of environmental perspectives and IT. CO2: To use the methods and tools to measure energy consumption. CO3: To evaluate the effectiveness of IT use in relation to environmental perspectives. CO4: To select the hardware and software can facilitate a more sustainable operation. CO5: To use and give an account of standards and certifications related to sustainable IT products.



<b>Program Name and Semester</b>	<b>Bachelor of Science in Information Technology (B. Sc.IT) Semester -III</b>
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<b>Course Name</b>	<b>Course Outcome</b>
Applied Mathematics	<p>CO1: Matrices will help to calculate the various image transformations that are done.</p> <p>CO2: The equation of First Order and second order differential Equation can describe exponential growth and decay, the population growth of species or the change in investment return over time.</p> <p>CO3: Implementation of Laplace Transformation will help to understand how various analogue and digital signal conversions are done.</p> <p>CO4: Multiple Integration will help to calculate the surface area and volume of any real-life objects.</p> <p>CO5: Error functions will help to calculate the accurate error from true and observed value.</p>
Computer Networks	<p>CO1: To recognize the purposes and association between the OSI layers, different types of signals and their mechanism of understanding each of them.</p> <p>CO2: To understand types of multiplexing schemes, transmission media and functions of datalink layer.</p> <p>CO3: Identify the network devices working at various layers, media access layer and protocols.</p> <p>CO4: To implement switching and routing algorithms like RIP, OSPF etc. and addressing schemes.</p> <p>CO5: To decide the right client server protocols to be used in the real-life scenario.</p>
Python Programming	<p>CO1: To develop small applications using basic concepts, values &amp; expressions, various control &amp; conditional statements, and Looping.</p> <p>CO2: To use and implement built-in functions and User defined Functions along with different string methods.</p> <p>CO3: To use new datatypes such as Lists, Tuples, and dictionaries, Create and handle Exceptions and how to deal with files.</p> <p>CO4: To create classes and objects, implement use of regular expression and multithreaded programming.</p> <p>CO5: To develop GUI applications with database connectivity.</p>



<b>Course Name</b>	<b>Course Outcome</b>
Data Structures	<p>CO1: Understand how arrays can be efficiently used to store linear sets of similar type of data and perform various operations like searching, sorting, merging, reversing etc.</p> <p>CO2: Interpret Linked List data structure to store data in non-linear form for effective utilization of memory, to solve problems like polynomial equations.</p> <p>CO3: Design stack and queue data structures and learn basic operations to be performed. Solve various problems using stacks and queues.</p> <p>CO4: Apply various sorting and searching techniques on arrays and to create several types of trees and their applications like Huffman Algorithm, binary search tree etc.</p> <p>CO5: Understand Hashing techniques including collision techniques and to study graphs and their different operations and its traversals.</p>
Operating Systems	<p>CO1: To learn about operating systems and its evolution and also about the process and its creation and termination understand</p> <p>CO2: To demonstrate the concept of threads and multithreading and to know what concurrency and mutual exclusion is</p> <p>CO3: To implement deadlock detection techniques in sums Unit 3</p> <p>CO4: To demonstrate the concept of memory management using Paging and segmentation.</p> <p>CO5: To be able to compare several types of operating systems.</p>



<b>Program Name and Semester</b>	<b>Bachelor of Science in Information Technology (B. Sc.IT) Semester -IV</b>
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<b>Course Name</b>	<b>Course Outcome</b>
Introduction to Embedded Systems	<p>CO1: Understand the basic concepts of embedded systems.</p> <p>CO2: Familiarize with characteristics and attributes of embedded systems.</p> <p>CO3: Demonstrate knowledge and understanding of hardware software co design techniques for microcontroller based embedded systems.</p> <p>CO4: Program microcontrollers in C using IDE and debugging techniques.</p> <p>CO5: Design, Development, and planning of embedded systems-based projects.</p>
Computer Graphics and Animation	<p>CO1: To provide an overview of the Computer Graphics field. To describe the important input &amp; output graphics devices. To understand applications of Computer Graphics, different Scanning techniques.</p> <p>CO2: Develops theory of 2D, 3D transformation and describes several types of 2D, 3D transformations.</p> <p>CO3: Learning the basics of 3D Viewing &amp; projections, basics of lights and color.</p> <p>CO4: To compare different algorithms for removal of hidden lines and surfaces. It tells how to design and smooth surfaces.</p> <p>CO5: To Interpret the overviews of animation along with its types and techniques.</p>
Computer Oriented Statistical Techniques	<p>CO1: Able to summarize the information present in the given data set and gives an idea around which value the data observation is clustered.</p> <p>CO2: Understand the complementary relationship of skewness with measures of central tendency and dispersion in describing a set of data.</p> <p>CO3: To be able to infer information about a population from samples drawn from it. And, to make decisions about populations based on sample information.</p> <p>CO4: To determine whether the difference between the observed and expected values is statistically significant.</p> <p>CO5: Able to identify the strength and direction of a linear relationship between two variables using correlation and to predict how much a dependent variable changes based on adjustments to an independent variable using regression.</p>
Core Java	<p>CO1: To learn program structure and basic concepts of java.</p> <p>CO2: To understand and apply OOP techniques to solve real world problems.</p> <p>CO3: To use and create packages and interfaces in a Java program.</p> <p>CO4: To implement Multithreading &amp; exception handling techniques in java.</p> <p>CO5: To design GUI application using Abstract Windows Toolkit.</p>



<b>Course Name</b>	<b>Course Outcome</b>
Software Engineering	CO1: To learn basic concepts related to requirement engineering, different software development models, SRS document. CO2: To understand types of critical systems and learn about system models. CO3: To design and manage the software, different software architectural styles. CO4: To Verify and validate software and to estimate the cost of software. CO5: To learn about process improvement and diverse types of software engineering.

