MCA Year 1

Database Management Systems

Course Outcomes **At the end of the course, students will be able to**	
CO1	Understand database concepts and structures, query language and ER model.
CO2	Apply various Normalization techniques.
CO3	Execute various advance SQL queries related to Transaction Processing & Locking.
CO4	Adapt the principles of storage structure and recovery management.

Software Engineering

Course Outcomes **At the end of the course, students will be able to**	
CO1	Demonstrate knowledge of and apply current theories, models, and techniques that provide a basis for the software lifecycle.
CO2	Adapt the basic software engineering methods and analyze appropriate applications.
CO3	Critically evaluate various SDLC phases.
CO4	Compose the requirements document by understanding the software requirements and current engineering trends.

Object Oriented Programming with C++

Course Outcomes **At the end of the course, students will be able to**	
CO1	Demonstrate knowledge of C++ and analyze OOPs and examine the use of various OOPs concepts with the help of programs.

CO2	Evaluate concept of function overloading, operator overloading, virtual functions and polymorphism.
CO3	Classify and interpret inheritance with the understanding of early and late binding, usage of exception handling, generic programming.
CO4	Redefine and create procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.

Operating System Concepts

Course Outcomes **At the end of the course, students will be able to**	
CO1	Explore general architecture of computers and describe, contrast and compare differing structures for operating systems.
CO2	Analyze and classify different approaches to Management Techniques.
CO3	Perceive dimensions of process and summarize processes of synchronization and schedule.
CO4	Adapt data structures and algorithms used to implement an OS.

DATA COMMUNICATION & COMPUTER NETWORK

Course Outcomes **At the end of the course, students will be able to**	
CO1	Assess fundamentals of data communication, layered model, protocols and interworking between computer networks and switching components in telecommunication systems.
CO2	Maximize network protocols and architectures.
CO3	Summarize nature, uses and implications of internet technology.
CO4	Collaborate and maximizese knowledge of Advanced Network Technologies.

DATA STRUCTURE USING C++

Course Outcomes At the end of the course, students will be able to	
CO1	Demonstrate and analyze the concepts of Abstract data Type, data structure, performance measurement, time and space complexities of algorithms.
CO2	Identify and evaluate linear data structures.
CO3	Identify and evaluate nonlinear data structures.
CO4	Discuss and formulate various Searching and Sorting data structures.

ADVANCE DATABASE MANAGEMENT SYSTEM

Course Outcomes At the end of the course, students will be able to	
CO1	Critically evaluate alternative designs and architectures for databases and data warehouses.
CO2	Assess and apply database functions and packages suitable for enterprise database development and database management.
CO3	Integrate the background processes involved in queries and transactions and explain its impact on database operation and design.
CO4	Develop holistic solutions based on database systems/database techniques.

Design and analysis of Algorithm

Course Outcomes At the end of the course, students will be able to	
CO1	Examine the major modern algorithms and selected techniques that are essential to contemporary computers.
CO2	Identify the key characteristics of a given problem and analyze the suitability of a specific algorithm design technique for the problem.
CO3	Reasoning about the correctness of algorithms

CO4	Develop and implement a solution for a given problem and algorithm in high-level programming languages.

Management Information System and Business Intelligence

Course Outcomes **At the end of the course, students will be able to**	
CO1	Relate and compare the basic concepts and technologies used in the field of management information systems.
CO2	Design tested and effective advanced analytics models and simulations for decision making.
CO3	Build and enhance business intelligence capabilities by adapting the appropriate technology and software solutions.
CO4	Display proficiency solving business problems using modern productivity tools or creating custom programs.

Enterprise Resource Planning

Course Outcomes **At the end of the course, students will be able to**	
CO1	Explore evolution and dimensions of ERP and Related Technologies.
CO2	Analyse steps and activities in the ERP modules and life cycle.
CO3	Explore and apply contemporary Trends in ERP.
CO4	Create reengineered business processes for successful ERP implementation.