

Department of MCA
Course Outcomes(2023-24)

Year	1st	Semester	I
Subject Name	FC & ET	Subject Code/ NBA Code	KCA101/M101
S. No.	Course Outcomes (CO)		
CO 1	Demonstrate the knowledge of the basic structure, components, features and generations of computers.		
CO 2	Describe the concept of computer languages, language translators and construct algorithms to solve problems using programming concepts.		
CO 3	Compare and contrast features, functioning & types of operating system and computer networks.		
CO 4	Demonstrate architecture, functioning & services of the Internet and basics of multimedia.		
CO 5	Illustrate the emerging trends and technologies in the field of Information Technology.		

Year	1st	Semester	I
Subject Name	PROBLEM SOLVING USING C	Subject Code/ NBA Code	KCA102/M102
S. No.	Course Outcomes (CO)		
CO 1	Understand basics of C Programming and Solve basic problems with the help of flowcharts/algorithms and Write programs that incorporate operators and expressions.		
CO 2	Understand basic concepts of Control statements and functions and Write 'C' programs that incorporate use of Control statements and functions for solving problems.		
CO 3	Understand basic concepts of Array, strings, & pointers and Write programs using arrays, strings and pointers for solving problems.		
CO 4	Understand basic concepts of Structure, Union and storage classes and Create/Write programs using the concepts of pointers, structures, & unions.		
CO 5	Understand basic concepts of dynamic memory allocation, files and graphics and Create/Write programs using file handling graphics.		


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Year	1st	Semester	I
Subject Name	Principles of Management and Communication	Subject Code/ NBA Code	KCA103/M103
S. No.	Course Outcomes (CO)		
CO 1	Describe primary features, processes and principles of management.		
CO 2	Explain functions of management in terms of planning, decision making and organizing.		
CO 3	Illustrate key factors of leadership skill in directing and controlling business resources and processes.		
CO 4	Exhibit adequate verbal and non-verbal communication skills.		
CO 5	Demonstrate effective discussion, presentation and writing skills.		

Year	1st	Semester	I
Subject Name	Discrete Mathematics	Subject Code/ NBA Code	KCA104/M104
S. No.	Course Outcomes (CO)		
CO 1	Use mathematical and logical notation to define and formally reason about basic discrete structures such as Sets, Relations and Functions.		
CO 2	Demonstrate an understanding of lattices and Boolean Algebra their properties.		
CO 3	Apply mathematical arguments using logical connectives and quantifiers to check the validity of an argument through truth tables and propositional and predicate logic		
CO 4	Identify and prove properties of Algebraic Structures like Groups, Rings and Fields		
CO 5	Apply the concept of combinatorics to solve basic problems in discrete mathematics		


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Year	1st	Semester	I
Subject Name	Computer Organization & Architecture	Subject Code/ NBA Code	KCA105/M105
S. No.	Course Outcomes (CO)		
CO 1	Study of the basic structure and operation of a digital computer system.		
CO 2	Analysis of the design of arithmetic & logic unit and understanding of the fixed point and floating point arithmetic operations		
CO 3	Implementation of control unit techniques and the concept of Pipelining		
CO 4	Understanding the hierarchical memory system, cache memories and virtual memory		
CO 5	Understanding the different ways of communicating with I/O devices and standard I/O interfaces		

Year	2nd	Semester	III
Subject Name	Artificial Intelligence	Subject Code/ NBA Code	KCA301/M301
S. No.	Course Outcomes (CO)		
CO 1	Define the meaning of intelligence and study various intelligent agents.		
CO 2	Understand, analyze and apply AI searching algorithms in different problem domains.		
CO 3	Study and analyze various models for knowledge representation.		
CO 4	Understand the basic concepts of machine learning to analyze and implement widely used learning methods and algorithms.		
CO 5	Understanding concept of pattern recognition and evaluate various classification and clustering techniques		


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Year	2nd	Semester	III
Subject Name	Software Engineering	Subject Code/ NBA Code	KCA302/M302
S. No.	Course Outcomes (CO)		
CO 1	Explain various software characteristics and analyze different software Development Models.		
CO 2	Demonstrate the contents of a SRS and apply basic software quality assurance practices to ensure that design, development meet or exceed applicable standards.		
CO 3	Compare and contrast various methods for software design.		
CO 4	Formulate testing strategy for software systems, employ techniques such as unit testing, Test driven development and functional testing.		
CO 5	Manage software development process independently as well as in teams and make use of various software management tools for development, maintenance and analysis.		

Year	2nd	Semester	III
Subject Name	Computer Network	Subject Code/ NBA Code	KCA303/M303
S. No.	Course Outcomes (CO)		
CO 1	Describe communication models TCP/IP, ISO-OSI model, network topologies along with		
CO 2	Apply knowledge of error detection, correction and learn concepts of flow control along with error control.		
CO 3	Classify various IP addressing techniques, subnetting along with network routing protocols and algorithms.		
CO 4	Understand various transport layer protocols and their design considerations along with congestion control to maintain Quality of Service.		
CO 5	Understand applications-layer protocols and elementary standards of cryptography and network security.		


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Year	2nd	Semester	III
Subject Name	Cloud Computing	Subject Code/ NBA Code	KCA014/M014
S. No.	Course Outcomes (CO)		
CO 1	Understand the concept of cloud computing , key technologies, strengths and limitations of cloud computing .		
CO 2	Develop the ability to understand and use the architecture to compute and storage cloud, service and models.		
CO 3	Understand the application in cloud computing.		
CO 4	Learn the key and enabling technologies that helps in the development of cloud.		
CO 5	Explain the core issues of cloud computing such as resource management and security.		

Year	2nd	Semester	III
Subject Name	Web Technology	Subject Code/ NBA Code	KCA021/M021
S. No.	Course Outcomes (CO)		
CO 1	Construct static web pages using HTML and CSS.		
CO 2	Develop an interactive web page using JavaScript.		
CO 3	Develop dynamic web applications using servlet and JSP.		
CO 4	Illustrate Spring-based Java applications using Java configuration, XML configuration, annotation-based configuration, beans and their scopes, and properties.		
CO 5	Test web services using Spring Boot and REST API		


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Year	1st	Semester	II
Subject Name	Theory of Automata and Formal Languages	Subject Code/ NBA Code	KCA201/M201
S. No.	Course Outcomes (CO)		
CO 1	Analyze and design finite automata, pushdown automata, Turing machines, formal languages, and grammars		
CO 2	Analyze and design, Turing machines, formal languages, and grammars		
CO 3	Demonstrate the understanding of key notions, such as algorithm, computability, decidability, and complexity through problem solving		
CO 4	Prove the basic results of the Theory of Computation.		
CO 5	State and explain the relevance of the Church-Turing thesis		

Year	1st	Semester	II
Subject Name	Object Oriented Programming	Subject Code/ NBA Code	KCA202/M202
S. No.	Course Outcomes (CO)		
CO 1	Understanding the basic Programming concepts using Java.		
CO 2	Analyze OOP concepts like Inheritance, Polymorphism, Abstraction and Encapsulation, etc.		
CO 3	Implement Exception Handling and File Handling in Java		
CO 4	Apply concept of Multithreading and Generic Programming in Java		
CO 5	Design GUI applications using AWT and Swing in Java		

Year	1st	Semester	II
Subject Name	Operating Systems	Subject Code/ NBA Code	KCA203/M203
S. No.	Course Outcomes (CO)		
CO 1	Understand the structure and functions of OS		
CO 2	Learn about Processes, Threads and Scheduling algorithms.		
CO 3	Understand the principles of concurrency and Deadlocks		
CO 4	Learn various memory management scheme		
CO 5	Study I/O management and File systems.		

Year	1st	Semester	II
Subject Name	Database Management System	Subject Code/ NBA Code	KCA204/M204
S. No.	Course Outcomes (CO)		
CO 1	Describe the features of a database system and its application and compare various types of data models.		
CO 2	Construct an ER Model for a given problem and transform it into a relational database schema.		
CO 3	Formulate solution to a query problem using SQL Commands, relational algebra, tuple calculus and domain calculus.		
CO 4	Explain the need of normalization and normalize a given relation to the desired normal form		
CO 5	Explain different approaches of transaction processing and concurrency control.		

Year	1 st	Semester	II
Subject Name	Data Structures and Analysis of Algorithms	Subject Code/ NBA Code	KCA205/M205
S. No.	Course Outcomes (CO)		
CO 1	Explain the concept of data structure, abstract data types, algorithms, analysis of algorithms and basic data organization schemes such as arrays and linked lists.		
CO 2	Describe the applications of stacks and queues and implement various operations on them using arrays and linked lists.		
CO 3	Describe the properties of graphs and trees and implement various operations such as searching and traversal on them.		
CO 4	Compare incremental and divide-and-conquer approaches of designing algorithms for problems such as sorting and searching.		
CO 5	Apply and analyze various design approaches such as Divide-and-Conquer, greedy and dynamic for problem solving .		


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Year	2nd	Semester	IV
Subject Name	Privacy and Security in Online Social Media	Subject Code/ NBA Code	KCA031/M031
S. No.	Course Outcomes (CO)		
CO 1	Understand working of online social networks.		
CO 2	Describe privacy policies of online social media.		
CO 3	Analyze countermeasures to control information sharing in Online Social Networks.		
CO 4	Apply knowledge of identity management in Online Social Networks.		
CO 5	Compare various privacy issues associated with popular social media.		

Year	2nd	Semester	IV
Subject Name	Mobile Computing	Subject Code/ NBA Code	KCA051/M051
S. No.	Course Outcomes (CO)		
CO 1	Study and aware fundamentals of mobile computing.		
CO 2	Study and analyze wireless networking protocols, applications and environment.		
CO 3	Understand various data management issues in mobile computing.		
CO 4	Analyse different types of security issues in mobile computing environment.		
CO 5	Study, analyze, and evaluate various routing protocols used in mobile computing.		

Year	2nd	Semester	IV
Subject Name	Internet of Things	Subject Code/ NBA Code	KCA043/M043
S. No.	Course Outcomes (CO)		
CO 1	Explain the architecture of Internet of Things.		
CO 2	Demonstrate the different technologies for IOTs.		
CO 3	Apply Python Programming skills to develop IOT application.		
CO 4	Analyze the architecture of Arduino and Raspberry Pi.		
CO 5	Create Small IOT Applications using Sensors.		


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