

Program Name: MCA

PO	Graduate Attribute	Description
PO1	Computational Knowledge	Develop and apply fundamentals of mathematics and computing to demonstrate competencies in IT ecosystem.
PO2	Problem Analysis	Identify, conduct survey use quantitative and qualitative techniques to develop critical thinking & problem solving skills.
PO3	Design /Development of Solutions	The ability to analyze problem domain & its variable factors to design a solution which is in sync with societal, cultural, public health, safety & environmental consideration
PO4	Conduct investigations of complex Computing problems	The ability to apply computing knowledge, research methodology to analyze & interpret complex computing problem
PO5	Modern Tool Usage	Adapt and apply appropriate modern tools & techniques to solve complex problems through practical lab sessions
PO6	Professional Ethics	Understand and develop awareness of ethical, social, cultural & cyber regulations for professional computing practices.
PO7	Life-long Learning	Recognizing the need for self development through up gradation to keep pace with dynamic IT industry.
PO8	Project management and finance	Illustrate the understanding of basic principles of management and apply the same to one's project and contribute effectively in various projects in a transnational, multicultural teams across the globe.
PO9	Communication Efficacy	Understand and efficiently communicate with IT professional and common audience about complex computing data through effective reports, documentation & presentation.
PO10	Societal and Environmental	Acknowledge & Sensitize towards the social, legal, cultural issues & their influence on computing practices & their consequential responsibility as an IT professional.
PO11	Individual and Team Work	Function as an effective collaborator, member, leader in a transnational workplace
PO12	Innovation and Entrepreneurship	Inculcate a spirit of innovation and enterprise through sustained training programs, mentoring, to create a budding entrepreneur & technocrat to contribute to a society at a large

MCA 2 Years (New Scheme) SEM I		Course Outcome
Course Name	CO	
Mathematical Foundation for Computer Science 1	CO1	Apply different statistical measures on various types of data
	CO2	Evaluate using regression analysis
	CO3	Analyze different types of Probability and their fundamental applications and random variable.
	CO4	Apply probability distribution to real world problems
	CO5	Formulate and test the hypothesis for business problem using various methods



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Course Name	CO	Course Outcome
Advanced JAVA	CO1	Demonstrate use of data structure and data manipulation concept using Java Collection Framework and Lambda
	CO2	Create JSP using standard actions, custom tags, Introduction to JSP Standard Tag Library (JSTL) and JSTL Tags.
	CO3	Understand and develop applications using Spring Framework, Lightweight Container and Dependency Injection with
	CO4	Develop applications using Aspect Oriented Programming with Spring.
	CO5	Apply JDBC Data Access with Spring and demonstrate Data access operations with Jdbc Template and Spring.
	CO6	Create Spring Boot Web Application and Spring Boot RESTful WebServices.
Course Name	CO	Course Outcome
Advanced Database Management System	CO1	Demonstrate complex database systems like parallel, distributed & object oriented databases
	CO2	Model data warehouse with ETL process and dimensional modeling and data analysis using OLAP operations.
	CO3	Discover association among items using Association rule mining.
	CO4	Evaluate different data mining techniques like classification, prediction, clustering, web and text mining to solve real

Course Name	CO	Course Outcome
Software Project Management	CO1	Define the key concepts of Software Project Management.
	CO2	Demonstrate understanding of the requirements Analysis and Application of UML Models.
	CO3	Make use of estimation logic for estimation of software size as well as cost of software.
	CO4	Examine the need of change management during software development as well as application of quality tools.
	CO5	Assess various factors influencing project management, quality assurance and risk assessment.
	CO6	Develop process for successful quality project delivery.

Course Name	CO	Course Outcome
Data Structures Lab with C and C++	CO1	Implement searching and sorting algorithms
	CO2	Implement linear and non-linear data structures
	CO3	Choose the appropriate data structures to solve complex real life problems
	CO4	Analyze hashing techniques for data storage and retrieval
Course Name	CO	Course Outcome
Advanced Java Lab	CO1	Demonstrate use of data structure and data manipulation concept using Java Collection Framework and Lambda
	CO2	Build JSP web application using standard actions, custom tags and JSTL Tags.
	CO3	Develop application using Spring Framework, Lightweight Containers and Dependency Injection with Spring.
	CO4	Develop applications using Aspect Oriented Programming with Spring.



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	C05	Build JDBC application with Spring using JdbcTemplate.
	C06	Develop Spring Boot Web Application and Spring Boot RESTful web services.

Course Name	CO	Course Outcome
Advanced Database Management System	C01	Demonstrate distributed and ORDBMS concepts
	C02	Perform ETL operations used in the building data warehouse.
	C03	Demonstrate and analysis various OLAP operations.
	C04	Implement and evaluate different data mining techniques like classification, prediction, clustering and association rule
Course Name	CO	Course Outcome
Web Technology LAB	C01	Build simple websites making use of various Node.js features
	C02	Design a dynamic web application enabled with database connectivity
	C03	Use the fundamentals of Angular.js Filters, Directives and Controllers to build applications
	C04	Develop Forms and Single page applications (SPA)

Course Name	CO	Course Outcome
Mini Project 1 A	C01	Demonstrate the ability to produce a technical document.
	C02	Apply software project management skills during project work.
	C03	Build small groups to work effectively in team on medium scale computing projects.
	C04	Design and evaluate solutions for complex problems.

MCA 2 Years (New Scheme) SEM II		
Course Name	CO	Course Outcome
Mathematical Foundation for Computer Science II	C01	Formulate mathematical model for a broad range of problems in business and industry.
	C02	Apply mathematics and mathematical modeling to forecast implications of various choices in real world problems
	C03	Think strategically and decide the optimum alternative from various available options
	C04	Evaluate performance parameters of a real system using various methods

Course Name	CO	Course Outcome
Artificial Intelligence and Machine Learning	C01	Interpret Artificial Intelligence concepts intelligence concepts
	C02	Apply Artificial intelligence techniques for problem solving
	C03	Analyze the fundamentals of machine learning, the learning algorithms and the paradigms of supervised and



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	C04	Identify methods to improve machine learning results for better predictive performance
Course Name	CO	Course Outcome
Information Security	CO1	Discuss the requirement of information security , private and public key algorithms and to examine the mathematics of cryptography
	CO2	Analyze authentication and integrity techniques available
	CO3	Interpret the importance of firewalls and intrusion detection systems and signatures.
	CO4	Relate to the security issues and technologies used in the web, internet, database and operating system

Course Name	CO	Course Outcome
MCAE241	CO1	Explain the fundamental concepts of a digital image processing System
Elective 1.1	CO2	Apply techniques for enhancing digital images
Image Processing	CO3	Examine the use of Fourier transforms for image processing in the frequency domain
	CO4	Compare various Image compression standards and morphological Operation
	CO5	Identify various Applications of Image Processing

Course Name	CO	Course Outcome
MCAE242	CO1	Compare M2M and IoT; discuss applicability of IoT enabling technologies, characteristics of IoT systems and IoT levels.
Elective 1.2	CO2	Explain different state of art IoT reference models and architectures as well as Architecture Reference Model (ARM) for Internet of Things
Internet of Things	CO3	Analyze various protocols for IoT, IoT security aspects and generic design methodology
	CO4	Develop cloud based and web based IoT Model for specific domains

Course Name	CO	Course Outcome
MCAE243	CO1	Define the key concepts of Robotic Process Automation and evolution.
Elective 1.3	CO2	Demonstrate development of BOT with specific tools
Robotic Process Automation	CO3	Apply RPA implementation cycle considering security and scaling
	CO4	Examine specifications of RPA tools and justify applications of appropriate tool for problem.
	CO5	Assess performance of BOTs in context of intelligent automation

Course Name	CO	Course Outcome
MCAE244	CO1	Explain Concepts and Applications of Computer Vision
Elective 1.4	CO2	Apply image processing techniques to design Computer Vision applications
Computer	CO3	Implement algorithms of face recognition and motion detection

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Vision	CO4	Provide solutions to real world computer vision problems
Course Name	CO	Course Outcome
MCAE245	CO1	Explain hardware and software design requirements of Embedded Systems
Elective 1.5	CO2	Discuss the architecture of 8051 processor
Embedded System	CO3	Describe 8051 Processor Addressing modes and instruction sets
	CO4	Use Embedded C for writing basic programs for embedded systems
	CO5	Examine the use of various Embedded C programming constructs for writing programs for embedded systems.
Course Name	CO	Course Outcome
MCAE251	CO1	Understand the computational properties of natural languages and the commonly used algorithms for processing
Elective 2.1	CO2	Understand the information retrieval techniques using NLP
Natural Language Processing	CO3	Apply mathematical techniques that are required to develop NLP applications
	CO4	Analyze various NLP algorithms and text mining NLP applications
	CO5	Design real world NLP applications such as machine translation, text categorization, text summarization, information extraction by applying NLP techniques.

Course Name	CO	Course Outcome
MCAE252	CO1	Define the key concept of Geographic Information System
Elective 2.2	CO2	Examine the various aspects of vector data model by survey and discover of concepts
Geographic Information System	CO3	Elaborate and estimate raster data model by designing and developing effective plan
	CO4	Demonstrate understanding of the Terrain Mapping, View shade and Watershed Analysis in contrast by explaining main
	CO5	Experiment of Geocoding and Dynamic Segmentation by applying facts and techniques
	CO6	Present and explain importance of remote sensing by evaluating recommended set of criteria

Course Name	CO	Course Outcome
MCAE253	CO1	Analyze the time and space complexity of various algorithms
Elective 2.3	CO2	Analyze divide and conquer, greedy and dynamic programming strategies.
Design and Analysis of	CO3	Analyze backtracking, branch and bound and string matching algorithm.
	CO4	Explain NP hard NP complete problem.

Course Name	CO	Course Outcome
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MCAE254 Elective 2.4 Digital Marketing and Business Analytics	CO1	Understand the role of Digital Marketing
	CO2	Demonstrate use of various Digital Marketing Tools.
	CO3	Discuss key element of Digital Marketing Strategy.
	CO4	Understand use of Digital Marketing Tools for Digital Marketing Campaigns
	CO5	Assess / Measure the effectiveness of the Digital Marketing Campaigns.
	CO6	Demonstrate practical skills using common digital marketing tools like SEO, SEM, Content Marketing...
Course Name	Course Outcome	
MCAE255 Elective 2.5 Research Methodology	CO1	Demonstrate knowledge of research concepts and processes
	CO2	Perform literature reviews, prepare the key elements of a research proposal
	CO3	Compare and contrast quantitative and qualitative research
	CO4	Define and develop a possible research interest area using specific research design
	CO5	Explain the rationale for research ethics, and its importance
	CO6	Demonstrate enhanced writing skills
Course Name	Course Outcome	
Artificial Intelligence and Machine Learning Lab	CO1	Apply the basic concepts of artificial intelligence and its applications
	CO2	Experiment with basic and ensemble the machine learning algorithms and its applications.
	CO3	Analyze dimensionality reduction techniques for feature extraction and selection.
	CO4	Develop models using appropriate machine learning algorithms for real world problems.

Course Name	Course Outcome	
Soft Skill Development Lab	CO1	Develop interpersonal skills that help in communication, teamwork, leadership and decision making.
	CO2	Methodically study, formulate and interpret different facets of organizational behavior.
	CO3	Develop holistic leaders and technocrats helping in individual and organizational growth.
Course Name	Course Outcome	
MCALE231	CO1	Understand different image file formats and their structure




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Elective 1 Lab Image Processing Lab	CO2	Explain how Digital images are manipulated using various image enhancement techniques
	CO3	Learn the signal processing algorithms and techniques in image enhancement and image restoration.
	CO4	Implement digital transforms Creating
	CO5	Be able to understand and implement certain image compression techniques.

MCALE232 Internet of things Lab	Course Outcome	
	CO	
	CO1	Identify basic electronic components and make use of arduino software/hardware and arduino simulator.
	CO2	Experiment with various I/O devices and sensors with Arduino.
	CO3	Build IoT application using Cloud
CO4	Develop IoT based projects.	

MCALE233 Robotic Process Automation	Course Outcome	
	CO	
	CO1	Define the key concepts of Robotic Process Automation and evolution.
	CO2	Demonstrate development of BOT with specific tools
	CO3	Apply RPA commands to automate atskas
CO4	Summarize this tool as a summation of Robotic Process Automation, Cognitive Analytics, and Workforce Analytics	

MCALE234 Computer Vision Lab	Course Outcome	
	CO	
	CO1	Understand Open CV Framework
	CO2	Develop applications using basic image processing techniques used in Computer Vision
	CO3	Design Applications to Detect Motion and Face in an image
CO4	Create a Applications using CNN	

MCALE235 Embedded System Lab	Course Outcome	
	CO	
	CO1	Understand the programming environment of the 8051microcontroller
	CO2	Explain how microcontrollers can be programmed using embedded C programming
	CO3	Learn execution of Embedded C programming using simulators
CO4	Implement some basic hardware interfacing programs for 8051 / ARM / Raspberry Pi / Arduino	

MCALE24 Advanced Web Technologies	Course Outcome	
	CO	
	CO1	Develop Web applications using various controls and programming techniques.
	CO2	Implement Data Binding applications using ADO.NET
CO3	Solve identity management problems in web Applications application using session management and AJAX concepts	



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	CO4	Create modern web applications using Web Services and MVC5
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Course Name	CO	Course Outcome
MCAL25 Skill based Lab Course User Interface	CO1	Interpret user needs and context of User Interface design Specification
	CO2	Demonstrate the tools and techniques for designing informing models
	CO3	Develop high fidelity prototype for end to end solution.
	CO4	Apply best practices for evaluating user experience.

Course Name	CO	Course Outcome
MCAL26 Skill based Lab Course Networking	CO1	Demonstrate installation and configuration of Network simulator
	CO2	Construct network topologies using Network Simulator
	CO3	Analyze network traffic using network sniffing software
	CO4	Design and develop solutions to complex network problems using Network Simulator and Network Software

Course Name	CO	Course Outcome
Mini Project 1- B	CO1	Demonstrate the ability to produce a technical document.
	CO2	Apply software project management skills during project work
	CO3	Build small groups to work effectively in team on medium scale computing projects.
	CO4	Design and evaluate solutions for complex problems.

MCA 2 Years (New Scheme) SEM III		
Course Name	CO	Course Outcome
MCA31 Big Data Analytics and Visualization	CO1	Demonstrate the key issues in big data management and its associated application for business decision
	CO2	Develop problem solving and critical thinking skills in fundamental enabling techniques like Map Reduce, NoSQL, Hadoop Ecosystem
	CO3	Use of RDD and Data Frame to create Application in Spark.
	CO4	Implement exploratory data analysis using visualization

Course Name	CO	Course Outcome
MCA32 Distributed System	CO1	Illustrate principles and communication protocols of Distributed systems



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and Cloud Computing	CO2	Analyze clock synchronization and various algorithms
	CO3	Analyze Distributed shared memory and management concepts.
	CO4	Analyze Cloud computing and cloud models

Course Name	CO	Course Outcome
Elective 3.1 Blockchain	CO1	Explain Blockchain technologies and their components
	CO2	Interpret the uses of cryptographic techniques in Blockchain
	CO3	Demonstrate the use of hyperledger fabric and its components
	CO4	Build the smart contracts in Ethereum
	CO5	Analyze the use of Blockchain technology in various domains

Course Name	CO	Course Outcome
MCAE332 Elective 3.2 Deep Learning	CO1	Demonstrate concepts, architectures and algorithms of Neural Networks to solve real world problems.
	CO2	Identify deep feed-forward networks and different regularization techniques used in Deep Learning
	CO3	Identify challenges in Neural Network optimization and different optimization algorithms used in Deep learning models
	CO4	Analyze deep learning algorithms which are more appropriate for various types of learning tasks in various domains

Course Name	CO	Course Outcome
MCAE333 Elective 3.3 Game Development	CO1	Demonstrate Principles of Game Development
	CO2	Build applications using various components of Game development
	CO3	Develop multilayered and interactive games
	CO4	Solve Problems in 2D game development

Course Name	CO	Course Outcome
MCA334 Elective 3.4 Ethical Hacking	CO1	Recall the networking, sql, and encryption algorithm concepts to further study ethical hacking techniques, threats, tools and prevention against attacks
	CO2	Understand ethical hacking concepts, cases, ethics and cyberlaws
	CO3	Apply available hacking tools to find a solution to a given hacking issue.
	CO4	Analyze and classify the real-world hacking cases and situations
Course Name	CO	Course Outcome



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MCAE335	CO1	Understand basic principles and components of Quantum Computing
Elective 3.5	CO2	Analyze Quantum Computing algorithms
Quantum Computing	CO3	Design programs to perform basic Quantum Computing operations
	CO4	Identify classes of problems that can be solved using Quantum Computing

Course Name	CO	Course Outcome
MCAE341	CO1	Define the key concepts of Intellectual Property and IP Infringements
Elective 4.1	CO2	Understand and acquire knowledge of IPR policy followed in India
Intellectual Property Rights	CO3	Demonstrate the know-how required to identify, assess, and apply for IP rights protection under various applicable laws and treaties in force
	CO4	Analyze the development, registration procedure, protection, compliance, and enforcement of various intellectual

Course Name	CO	Course Outcome
MCAE342		
Elective 4.2		Acquire expertise for improving the energy efficiency for laptops and personal computers by reducing the power consumption requirements
Green Computing	CO1	Assess enterprise-wide and personal computing and computing energy consumption
	CO2	Recognize the necessity for long-term sustainability in IT
	CO3	Formulate plans for reducing IT heating and cooling requirements
	CO4	Evaluate the regulatory and governance issues surrounding IT
	CO5	
	CO6	Choose the best sustainable hardware for their applications

Course Name	CO	Course Outcome
MCAE343	CO1	Understand theoretical aspects of Management Information Systems.
Elective 4.3	CO2	Know the procedures and practices for handling information system effectively.
Management Information	CO3	Acquire knowledge in various Decision Support Systems.
	CO4	Recognize the necessity of IT security and Infrastructure in Management Information Systems.

Course Name	CO	Course Outcome
MCA344	CO1	Demonstrate understanding of basic concepts in cyber security
Elective 4.4	CO2	Make use of various tools and methods used in cybercrime
Cyber Security and Digital	CO3	Adapt fundamental knowledge of digital forensics
	CO4	Determine skills and knowledge for solving digital forensics Problems
Course Name	CO	Course Outcome



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MCAE345 Elective 4.5 Entrepreneurs hip Management	CO1	Understand the concepts and fundamentals of Entrepreneurship.
	CO2	Understand the growth and development strategies for venture and Social Responsibilities
	CO3	Identify the Role of Small-Scale Industries (SSI) & Institutions Supporting Small Scale Enterprise.
	CO4	Analyse the process of Business Idea generation and converting the idea into a Business Model.
	CO5	Evaluate the effectiveness of different entrepreneurial strategies, policies and measures for promoting small industries.
	CO6	Create presentations and marketing strategies that articulate financial, operational, organizational, market, and sales knowledge for value creation
Course Name	CO	Course Outcome
MCAL31 Big Data Analytics and Visualization Lab	CO1	Demonstrate HDFS Commands in Hadoop
	CO2	Apply Map Reduce Programming Paradigm to solve the algorithmic problems
	CO3	Build No SQL Database and Query it Using Mongo DB
	CO4	Analyze the Data Using Hadoop Ecosystem Projects: Hive and Pig
	CO5	Explain RDD and Data Frame Creation in Apache Spark
	CO6	Create various Visualizations using Tableau.

MCAL34 Distributed System and Cloud Computing Lab	CO	Course Outcome		
			CO1	Develop Remote Process Communication, Remote Procedure Call and Remote Method Invocation concepts.
			CO2	Develop Remote Object Communication programs.
			CO3	Develop mutual exclusion concept using Token ring algorithm.
			CO4	Implementation of Cloud Computing Services.
			CO5	Implementation of Identity Management using Cloud Computing concept
CO6	Design Apps using Cloud Computing for windows Azure / Amazon AWS using Windows Azure Platform Training Kit and Visual Studio and Google App Engine by using Eclipse IDE.			
Course Name	CO	Course Outcome		
MCALE331 Elective 3 Lab Block Chain Lab	CO	Course Outcome		
			CO1	Implement encryption algorithms and hash functions
			CO2	Construct a bitcoin blocks and validating
			CO3	Construct a smart contract in Ethereum
CO4	Develop and deploy Dapp in Ethereum			



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Course Name	CO	Course Outcome
MCAL332, Deep Learning Lab	CO1	Demonstrate Tensor flow/Keras deep-learning workstations.
	CO2	Choose appropriate data preprocessing techniques to build neural network models
	CO3	Analyze different regularization and optimization techniques used in deep learning.
	CO4	Build neural network models using deep learning algorithms-CNN and RNN to solve real world problems.

Course Name	CO	Course Outcome
MCAL333 Game Development Lab	CO1	Build Games using Object Oriented Programming Concepts
	CO2	Simplify Game Development Process using Unity Framework
	CO3	Develop state of art 2D games
	CO4	Plan creation of 3D games and Test them

Course Name	CO	Course Outcome
MCAEL334 Ethical Hacking Lab	CO1	Applying foot printing tools for information gathering issue
	CO2	Applying tools for scanning networks, enumeration and sniffing.
	CO3	Applying tools for malware attacks, webserver and web applications, sql injection, session hijacking, wireless networking,
	CO4	Developing malwares and attack tools

Course Name	CO	Course Outcome
MCALE335 Quantum Computing Lab	CO1	Understand the various Quantum Logic gates
	CO2	Design QC programs using quantum arithmetic
	CO3	Develop QC applications based on the quantum computing model
	CO4	Compare basic quantum computing algorithms

Course Name	CO	Course Outcome
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MCA134 Mobile Computing Lab	CO1	Demonstrate their understanding of the fundamental details of android and its components
	CO2	Implement various android applications using different layouts & rich user interactive interfaces
	CO3	Demonstrate their skills of using SQLite database for android application database
	CO4	Demonstrate their ability to develop programs with dart programming and flutter

Course Name MCA135 Software Testing And Quality	Course Outcome	
	CO1	Apply manual software testing techniques to test a software application
	CO2	Implement Selenium tool to perform automation testing
	CO3	Implement Testing frameworks to test the application
CO4	Demonstrate validation checks and regression testing on the application	

Course Name MCAP31 Mini Project 2A	Course Outcome	
	CO1	Demonstrate the ability to produce a technical document.
	CO2	Identify problems based on environmental, societal & research needs.
	CO3	Apply Knowledge and skills to analyze and interpret data by applying appropriate research methods to solve societal problems in a group.
	CO4	Design and evaluate solutions for complex problems. Creating
	CO5	Build small groups to work effectively in team on medium scale computing projects.
CO6	Create value addition for the betterment of the individual and society	

MCA SEM IV

Course Name MCA141 Internship	Course Outcome	
	CO	Demonstrate skills to use modern tools, software and equipment to analyze problems.
	CO1	Develop an exposure to real life organizational and environmental situations.
	CO2	Apply SDLC phases in developing software projects and in writing the project document
	CO3	Create computing solutions for the real life problems as per the requirements of the domain
CO4	Adapt professional and interpersonal ethics.	
CO5		

Course Name	Course Outcome	
	CO	Understand analytic approach towards data coherently, effectively and counter hypothesis
CO1	Apply experience in preparation of research material for publication of presentation	
CO2		



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MCAR42 Research Paper	CO3	Identify relevant previous work that supports their research.
	CO4	Analyze data and synthesize research findings.
	CO5	Create A Research Papper

Course Name	CO	Course Outcome
MCAS44 ISR	CO1	Learner/student will be able to create awareness among individuals towards institutional & individual social responsibility for societal development.



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Programme Name:MMS

Programme Outcomes

Programme Name:MMS	PO	
MMS	PO1	Trust on current management practices, cross functional skills and holistic thinking.
	PO2	In-depth knowledge of General Management and Specialisation.
	PO3	To thrive in complex reality and to acquire skills to work effectively and efficiently in transnational workplace.
	PO4	Inculcate multitasking abilities amongst students, learning foreign languages and advanced IT knowledge.
	PO5	Team building basics and its orientation.
Specialization	PSO	Programme Specific Outcomes
MMS (HR)	PSO1	Critically assess existing theory and practice in the field of HRM;
	PSO2	Demonstrate competence in communicating and exchanging ideas in a group context;
	PSO3	Evaluate HRM related social, cultural, ethical and environmental responsibilities and issues in a global context.
	PSO4	Demonstrate knowledge of human behavior in organizations and the role of management strategies, including motivational theory to influence behavior
MMS (Marketing)	PSO1	Improve their managerial effectiveness in the field of marketing
	PSO2	Sound education in the theory and application of strategic marketing management
	PSO3	Incorporating current marketing thinking and equipping them with the key concepts
	PSO4	Developing and implementing marketing strategies in a fast changing, global business environment.
MMS (Finance)	PSO1	Select, adapt, apply and communicate advanced financial concepts;
	PSO2	Justify company valuation outcomes using finance theory; Prepare Complex Financial Structures
	PSO3	Examine current issues in finance using leading-edge research and practices in the field;
	PSO4	Demonstrate strong cognitive, technical and communication skills to work independently and collaboratively to collect, process, interpret and communicate the outcomes of financial problems; and,
MMS (IT)	PSO1	Identifying and evaluating the impact of relevant changing technology and managing those changes.
	PSO2	Designing programs to identify, develop and implement innovative technological based solutions.
	PSO3	Managing the effective planning and execution of those technology based initiatives and the integration of their results into the mainstream of an enterprises' strategy, processes and operations
	PSO4	The application of technology at a globalised workplace
MMS (Operations)	PSO1	Students shall acquire a fundamental understanding of the area of OM that includes the delivery of products and services.
	PSO2	Understand theoretical models and concepts as basis for development of a company's production and service deliveries.
	PSO3	Describe how Operational Capability determines the range of Business Strategies that can successfully be executed.
	PSO4	Describe the operational impacts of a chosen business strategy in terms of operational capabilities.

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MMS Sem I (Choice Based)		
Business Statistics	Course Name	CO
		CO1
		CO2
		CO3
		CO4
Operations Management	Course Name	CO
		CO1
		CO2
		CO3
		CO4
Managerial Economics	Course Name	CO
		CO1
		CO2
		CO3
Effective and Management Communication (Elective)	Course Name	CO
		CO1
		CO2
		CO3
Organizational Behaviour (Elective)	Course Name	CO
		CO1
		CO2
		CO3
		CO5
Negotiation and Selling Skills (Elective)	Course Name	CO
		CO1
		CO3

Course Outcomes

To know statistical techniques
 To understand different statistical tools
 To understand importance of decision support provided by analysis techniques
 To appreciate and apply it in business situations using caselets, modeling, cases and projects
 To understand Managerial applications of Statistics

Course Outcomes

To expose a student of Management to operations principles.
 To understand basic operating principles in product and service industry
 To be able to apply different analytical techniques of operations Management in different industry

Course Outcomes

To enable the students to understand both the theory and practice of Managerial Economics
 To ensure that the students are in a position to appreciate the finer nuances of the subject.
 To help the students in applying the knowledge so acquired in policy planning and Decision Making

Course Outcomes

In all social behavior, communication is essential in building and maintaining human relationships.
 In all social behavior, communication is essential in building and maintaining human relationships.
 In business, communication is essential for the smooth and efficient conduct of day-to-day transactions/activities.
 In recent years the importance of communication has greatly increased as a result of the globalisation

Course Outcomes

To provide students understanding how and why people behave in organizations as they do, either as individual or in groups and how their behaviours affect their performance and performance of the organization as a whole.
 To provide understanding how to effectively modify their behaviour through motivation and leadership for enhanced performance. And also to provide understanding about related concepts such as OD, Culture

Course Outcomes

The module will sensitize the students to the concepts and importance of Negotiations & Selling for all elements of Management.
 The module is designed to introduce the students to the basic elements of the selling.
 The module will give the students a broad understanding regarding different models used for effective selling and negotiation.



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MIMS Sem III(Choice Based)		
Marketing Management	Course Name	
	CO	
	CO1	The basic elements of the marketing management terms, implementation and related process
	CO2	The marketing concepts that will enable them to acquaint with contemporary marketing practices.
	CO3	This module is to learn the art and science of choosing target markets and getting, keeping and growing customers through creating, delivering, and communicating superior customer value.
CO4	keeping and growing customers through creating, delivering, and communicating superior customer value.	
CO5	Broad understanding of what marketing is all about and the vital role it plays in organisation.	

Financial Management	Course Name	
	CO	
	CO1	To gain in-depth knowledge of corporate finance and understand the functions of finance management.
CO2	Students should learn to analyze corporate financial statements and other parts of the annual report.	

Operations Research	Course Name	
	CO	
	CO1	To know optimizing techniques
	CO2	To understand its use in decision making in business
	CO3	To identify and develop operational research model from real system
CO4	To appreciate the mathematical basis for business decision making	

Business Research Methods	Course Name	
	CO	
	CO1	To understand the importance of research and various methods that researcher used to investigate problems
	CO2	Applying Modern Analytical tools for Business Management Decisions
	CO3	To derive strategies from the research and understand the challenges of data collection and analysis
CO4	To interpret the data to make meaningful decisions.	

Human Resource Management	Course Name	
	CO	
	CO1	To prepare a student for a career in industry and services.
	CO2	To facilitate learning in modern concepts, techniques and practices in the management of HR
CO3	To expose the student to different functional areas of Human Resource Management to enhance effectiveness	

Legal Aspects of Business & Taxation	Course Name	
	CO	
	CO1	To learn about the important provisions of some of the important business laws
CO2	To get exposure to important provisions of Indian Income Tax Act and Indirect Taxes	

Cost Accounting	Course Name	
	CO	
CO1	To understand the basic cost concepts and techniques of analyzing cost to have better management control and decision making	



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Course Name		CO	Course Outcomes
Analysis of Financial Statements	CO1	To understand the advanced tools used in financial statement analysis and financial reporting.	
	CO2	Students learn In-Depth analysis of the performance of a company	

MMS Semester III - CBGS Common Subjects

Course Name		CO	Course Outcomes
International Business	CO1	To develop a deep understanding of International Management	
	CO2	To develop the analytical ability of the student to attain an insight into International Management Context	

Course Name		CO	Course Outcomes
Strategic Management	CO1	To appreciate the role of Strategic thinking in changing business environment	
	CO2	To understand the process of Strategy Formulation, Implementation & Evaluation	
	CO3	Focus on application & decision making	

MMS Semester III Choice Based - Finance Specialization

Course Name		CO	Course Outcomes
Financial Markets and Institutions	CO1	To understand different components of the Indian Financial system and their functions.	
	CO2	To comprehend various products issued through different financial institutions in the primary / secondary markets.	
	CO3	To understand the fixed income market, the different instruments and concepts related to it.	

Course Name		CO	Course Outcomes
Corporate Valuation and Mergers & Acquisitions	CO1	To understand the process and set of procedures to be used to estimate the value of a company.	
	CO2	To learn to make strategic decisions in M&A to enhance a company's growth.	

Course Name		CO	Course Outcomes
Security Analysis and Portfolio Management	CO1	To understand the factors affecting the prices of different assets and to create an optimum portfolio based on given risk	
	CO2	To understand the need for continuous evaluation and review of the portfolio with different techniques.	
	CO3	To learn technical analysis to predict price movements based on indicators and forecasting techniques.	

Course Name		CO	Course Outcomes
Financial Regulations	CO1	To understand the regulations and its framework involved in financial system.	
	CO2	To learn major intricacies of financial regulations.	

Course Name		CO	Course Outcomes
Derivatives and Risk Management	CO1	To understand the concepts related to derivatives markets and gain in-depth knowledge of functioning of derivatives markets	
	CO2	To learn the derivatives pricing and application of strategies for financial risk management.	



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	CO3	To acquaint learners with the trading, clearing and settlement mechanism in derivatives markets.
Course Name Commodities Markets	CO	Course Outcomes
	CO1	To gain the knowledge of emergence of commodities markets and understand its future.
	CO2	To understand the dynamics of world commodities markets.
	CO3	To understand the ecosystem of Indian commodities markets.
	CO4	To acquaint learners with the trading, clearing and settlement mechanism in commodities markets.

MMS Semester III Choice Based - Marketing Specialization

Course Name Sales Management	CO	Course Outcomes
	CO1	To understand function of sales and its importance
	CO2	To comprehend the art of managing the sales force
	CO3	To motivate and manage sales force effectively
	CO4	To develop critical thinking skills and situational leaderships

Course Name Marketing Strategy	CO	Course Outcomes
	CO1	To understand and predict changes in the macroeconomic environment and its impact on marketing programmes
	CO2	To develop an ability to respond rapidly to changes driven by consumer behaviours / new technologies

Course Name Consumer Behaviour	CO	Course Outcomes
	CO1	An understanding of the pre and post purchase consumer behaviour.
	CO2	To develop conceptual insights into key aspects such as social, psychological and other factors that influence consumer behaviour

Course Name Service Marketing	CO	Course Outcomes
	CO1	To familiarize students to basic concepts and decision making processes involved in Services Management
	CO2	To help students to understand application of these concepts to various industries in service sector

Course Name Product and Brand Management	CO	Course Outcomes
	CO1	To expose and sensitize the students with the practices of product and brand management.
	CO2	To understand the key issues in Product and Brand Management

Course Name Retail Management	CO	Course Outcomes
	CO1	To develop the analytical ability of the students to attain an insight into Retail Management contexts
	CO2	To Understand the techniques for optimal utilization of resources

MMS Semester III Choice Based - Human Resources Specialization		
Course Name	CO	Course Outcomes
	CO	



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Training & Development	CO1	Learning the intricacies of process of training and development and audit
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Course Name	CO	Course Outcomes
Competency Based HRM and Performance Management	CO1	To understand the concept of compensation, various elements, inflation, laws related to compensation, variable pay and income tax
	CO2	To provide both theoretical and application-oriented inputs on competency mapping and developing mapped competencies.
	CO3	To impart the understanding about the Performance Management system and strategies adopted by the Organizations

Course Name	CO	Course Outcomes
HR Planning and Application	CO1	To understand the concept of HR Planning and application of technology in HR

Course Name	CO	Course Outcomes
Labour Laws and Implications on Industrial Relations	CO1	Understanding Nature and Importance of Labour Laws
	CO2	To understand various legislations with their history, basic provisions & case laws
	CO3	To study current amendments in Labour laws
	CO4	Highlight Labour Laws with IR implications

Course Name	CO	Course Outcomes
Personal Growth Laboratory	CO1	Basics of personality, personality types
	CO2	Introduction to emotional intelligence
	CO3	Stress and stress control techniques
	CO4	Introduction to NLP and transactional analysis

MMS Semester III Choice Based - IT Specialization

Course Name	CO	Course Outcomes
Database Management System and Database Warehousing	CO1	To understand the introduction, Meaning and Definition of Database, Database Environment
	CO2	To understand the Data Models : The importance of data models, Basic building
	CO3	Understand applications of Database Management System(DBMS) and RDBMS System
	CO4	Overview of Structured Query Language and application DBMS to business

Course Name	CO	Course Outcomes
Enterprise Management System	CO1	To understand ERP System - Meaning, Functional view of Business and merits and demerits of ERP
	CO2	To understand Enterprise Content Management System
	CO3	To understand Enterprise Portal

Course Name	CO	Course Outcomes



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Big Data and Business Analytics	CO1	To understand Big Data and Business Analytics
	CO2	To understand Business Analytics Cycle Introduction
	CO3	To understand Forecasting Optimazation, Simulation and Business Metrics

Course Name	CO		Course Outcomes
	CO1	To understand the meaning of data, information and Knowledge	
	CO2	To Know the conceptual background and framework of KM	
Knowledge Management	CO3	Understand the KM Foundations and Solutions KM Foundations	

Course Name	CO		Course Outcomes
	CO1	To understand the details of software development process with implementation and challenges	
Software Engineering	CO2	Ability to analyze, design, verify, validate, implement, apply and maintain software systems.	

Course Name	CO		Course Outcomes
	CO1	To understand the Introduction to Data Mining: Introduction, Definition of Data Mining, Data Mining Parameters.	
Data Mining and Business Intelligence	CO2	Data Mining Techniques: Introduction, Statistical Perspective on Data Mining, Statistics -Need and Algorithms	

MIMS Semester IV Choice Based - Finance Specialisation			
Course Name	CO		Course Outcomes
	CO1	To understand the concepts and fundamentals of Commercial Banking.	
Commercial Banking	CO2	To understand the Structure and growth of banking and various services rendered through commercial banks.	

MIMS Semester IV Choice Based - Marketing Specialisation			
Course Name	CO		Course Outcomes
	CO1	To develop an appreciation of the impact of rapidly changing environment on marketing strategies a	
Trends in Marketing	CO2	Giving insights to students to respond to these changes.	

MIMS Semester IV Choice Based - HR Specialisation			
Course Name	CO		Course Outcomes
	CO1	Basics of Change Management	
	CO2	Understanding OD Approaches and Models	
	CO3	Understanding Organizational Development – Diagnostics	
OD and Change Management	CO4	Trends in OD and Change Management	

MIMS Semester IV Choice Based - IT Specialisation			
Course Name	CO		Course Outcomes
	CO1	To understand use of Strategic IT for Competitive Advantage	
Strategic Information and			



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Technology Management CO2 To understand emerging trends in Strategic IT for business.

MIMS Semester IV Choice Based Common Subject

Course Name	CO	Course Outcomes
Project Management	CO1	To introduce students of Management to concepts of Project
	CO2	To apply and evaluate success parameters of cost, time and quality in project management
	CO3	Apply various techniques as cpm/pert/earned value analysis and projected financial statements

Course Name	CO	Course Outcomes
Summer Internship	CO1	Applying Classroom Theory to Real Business World
	CO2	Working in the field of specialization

Course Name	CO	Course Outcomes
Year Long Project	CO1	To understand the Global and Indian Business Environment related to a particular Industry
	CO2	To prepare a Business Model, Do a SWOT and SBU for a particular Company / Industry
	CO3	Prepare a Business Plan
	CO4	Prepare a Strategic Plan for the Organisation



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