

# DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

## COURSE OUTCOMES (R24 Regulation)

(NECRM.C.A24)

**COURSE NAME: MATHEMATICAL FOUNDATIONS OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING (24MC101)**

24MC101	MATHEMATICAL FOUNDATIONS OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
CO _1	Describe Linear Algebra & Vector Spaces concepts.(BL-2)
CO _2	Demonstrate Analytic Geometry & Matrix Decomposition.(BL-2)
CO _3	Understand descriptive statistics (BL-2)
CO _4	Understand statistical methods and probability (BL-2)
CO _5	Illustrate Statistical and probability distributions.(BL-3)

**COURSE NAME: COMPUTER ORGANIZATION AND ARCHITECTURE (24MC102)**

24MC102	COMPUTER ORGANIZATION AND ARCHITECTURE
CO _1	Analyze how the functional units of a computer operate, interact, and communicate.(BL-4)
CO _2	Identify the representation of numbers and perform arithmetic operations.(BL-3)
CO _3	Interpret the functional architecture of computing system.(BL-2)
CO _4	Define a logic for assembly language programming.(BL-1)
CO _5	Analyze the memory organization of computer system.(BL-4)

**COURSE NAME: DATABASE MANGEMENT SYSTEMS (24MC103)**

24MC103	DATABASE MANGEMENT SYSTEMS
CO _1	Describe database technologies and database design.(BL-2)
CO _2	Demonstrate Relational Database Management Systems.(BL-2)
CO _3	Construct queries, procedures for database creation in RDBMS.(BL-3)
CO _4	Apply normalization on database design and Demonstrate transaction management.(BL-3)
CO _5	Demonstrate concurrency control techniques and techniques for database recovery and indexing.(BL-2)

**COURSE NAME: DATA STRUCTURES (24MC104)**

<b>24MC104</b>	<b>DATA STRUCTURES</b>
<b>CO _1</b>	Understand basic concepts of data structures and algorithm analysis. <b>(BL - 2)</b>
<b>CO _2</b>	Develop the applications using stacks and queues. <b>(BL - 3)</b>
<b>CO _3</b>	Demonstrate use of different types of linked lists. <b>(BL - 2)</b>
<b>CO _4</b>	Apply the tree data structures for various applications. <b>(BL - 3)</b>
<b>CO _5</b>	Apply the graph data structures for various applications. <b>(BL - 3)</b>

**COURSE NAME: OPERATING SYSTEMS (24MC105)**

<b>24MC105</b>	<b>OPERATING SYSTEMS</b>
<b>CO _1</b>	Describe the concept operating system and operating system design. <b>(BL-2)</b>
<b>CO _2</b>	Analyze Process and CPU Scheduling, Process Coordination with concurrencies. <b>(BL-3)</b>
<b>CO _3</b>	Identify and evaluate Memory Management and Virtual Memory. <b>(BL-3)</b>
<b>CO _4</b>	Organize File System Interface. <b>(BL-3)</b>
<b>CO _5</b>	Understand Mass Storage Structure and Protection Mechanism. <b>(BL-2)</b>

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**COURSE NAME: PYTHON PROGRAMMING (24MC106)**

<b>24MC106</b>	<b>PYTHON PROGRAMMING</b>
<b>CO _1</b>	mmarize the fundamental concepts of python programming. <b>(BL - 2)</b>
<b>CO _2</b>	ply the basic elements and constructs the python to solve logical problems. <b>(BL-3)</b>
<b>CO _3</b>	ganize data using different data structures of python. <b>(BL - 3)</b>
<b>CO _4</b>	plement the files modules and packages in programming. <b>(BL - 3)</b>
<b>CO _5</b>	ply object-oriented concepts to build simple applications. <b>( BL - 3)</b>

**COURSE NAME: COMMUNICATION SKILL LAB (24MC107)**

<b>24MC107</b>	<b>COMMUNICATION SKILL LAB</b>
<b>CO _1</b>	To understand the communication concepts and to develop the students' competence in communication at an advanced level
<b>CO _2</b>	To participate in Team activities that leads to the development of collaborative work skills
<b>CO _3</b>	To develop strategies appropriately to improve Listening skills and Spoken Skills
<b>CO _4</b>	To provide the knowledge on Presentation Skills, Group Discussion, Interview Skills and Resume Writing
<b>CO _5</b>	To improve skills to write resume, cover letter and Technical report

**COURSE NAME: DATABASE MANAGEMENT SYSTEMS LAB (24MC108)**

<b>24MC108</b>	<b>DATABASE MANAGEMENT SYSTEMS LAB</b>
<b>CO _1</b>	Utilizing Data Definition Language (DDL), Data Manipulation Language (DML), and Data Control Language (DCL) commands effectively within a database environment <b>(BL3)</b>
<b>CO _2</b>	Constructing and execute queries to manipulate and retrieve data from databases <b>(BL3)</b>
<b>CO _3</b>	Develop application programs using PL/SQL <b>(BL3)</b>
<b>CO _4</b>	Analyze requirements and design custom Procedures, Functions, Cursors, and Triggers, leveraging their capabilities to automate tasks and optimize database functionality <b>(BL4)</b>
<b>CO _5</b>	Establish database connectivity through JDBC(Java Database Connectivity) <b>(BL3)</b>

**COURSE NAME: DATA STRUCTURES LAB (24MC109)**

<b>24MC109</b>	<b>DATA STRUCTURES LAB</b>
<b>CO _1</b>	Apply the Arrays for solving the problems. <b>(BL -3)</b>
<b>CO _2</b>	Implement searching and sorting algorithms for given applications. <b>(BL -3)</b>
<b>CO _3</b>	Apply the stacks and queues and linked lists for solving the given applications. <b>(BL -3)</b>
<b>CO _4</b>	Implement operations on trees and graphs for given applications. <b>(BL -3)</b>

**COURSE NAME: PYTHON PROGRAMMING LAB (24MC110)**

<b>24MC110</b>	<b>PYTHON PROGRAMMING LAB</b>
<b>CO _1</b>	Understanding and use of python- Basic Concepts( <b>BL -2</b> )
<b>CO _2</b>	Solve the concepts of python functions and data structures( <b>BL -3</b> )
<b>CO _3</b>	Understand the concepts of files, modules, multithreading and regular expressions ( <b>BL -2</b> )
<b>CO _4</b>	Solve the concepts of class and exception handling ( <b>BL -3</b> )

**COURSE NAME: ADVANCED JAVA PROGRAMMING (24MC201)**

<b>24MC201</b>	<b>ADVANCED JAVA PROGRAMMING</b>
<b>CO _1</b>	Construct programsonclasses,inheritance,polymorphismandinterfaces.( <b>BL-3</b> )
<b>CO _2</b>	Develop packages, handling of Exceptions.( <b>BL-3</b> )
<b>CO _3</b>	Construct programs using multi-threading and Applets.( <b>BL-3</b> )
<b>CO _4</b>	Develop database applications using JDBC and Servlets. ( <b>BL 3</b> )
<b>CO _5</b>	Design enterprise application using Java Server Pages(JSP).( <b>BL 3</b> )

**COURSE NAME: ARTIFICIAL INTELLIGENCE (24MC202)**

<b>24MC202</b>	<b>ARTIFICIAL INTELLIGENCE</b>
<b>CO _1</b>	Describe applications of Artificial Intelligence.(BL-2)
<b>CO _2</b>	Evaluate problem solving strategies in AI.(BL-3)
<b>CO _3</b>	Illustrate problem reduction techniques.(BL-2)
<b>CO _4</b>	List the logic concepts.(BL-2)
<b>CO _5</b>	Analyze the current knowledge representation techniques in AI.(BL-3)

**COURSE NAME: MOBILE APPLICATION DEVELOPMENT (24MC203)**

<b>24MC203</b>	<b>MOBILE APPLICATION DEVELOPMENT</b>
<b>CO _1</b>	
<b>CO _2</b>	
<b>CO _3</b>	
<b>CO _4</b>	
<b>CO _5</b>	

**COURSE NAME: SOFTWARE ENGINEERING (24MC204)**

<b>24MC204</b>	<b>SOFTWARE ENGINEERING</b>
<b>CO _1</b>	Identify the best suitable Process Methodology for developing a quality-oriented software solution <b>(BL-3)</b>
<b>CO _2</b>	Sketch the requirements analysis model for a project work by using various modeling diagrams. <b>(BL-3)</b>
<b>CO _3</b>	Apply the standard design principles based on the suitable architectural styles for given specifications. <b>(BL-3)</b>
<b>CO _4</b>	Describe the standard Golden rules for developing the user interface. <b>(BL-2)</b>
<b>CO _5</b>	Apply testing principles on software project and identify various software metrics <b>(BL-3)</b>

**COURSE NAME: ADVANCED JAVA PROGRAMMING LAB (24MC205)**

<b>24MC204</b>	<b>SOFTWARE ENGINEERING</b>
<b>CO _1</b>	Construct programs using Class, object and Constructor relationship in Object Oriented Programming.
<b>CO _2</b>	Implement basic knowledge of Operations, Expressions, Control-flow and Strings with the help of Java in Object Oriented Programming.
<b>CO _3</b>	Analyze the significance of various key words and implement reusability of code, Encapsulation and polymorphism technique in OOPs.
<b>CO _4</b>	Implements Interface ,exception handling in Java
<b>CO _5</b>	Implement Multithreading ,packages and Applet(Web program in java) Programming concept in Java.

**COURSE NAME: COMPUTER NETWORKS (24MC301)**

<b>24MC301</b>	<b>COMPUTER NETWORKS</b>
<b>CO _1</b>	Choose suitable transmission media depending on the requirements.(BL-2)
<b>CO _2</b>	Determine the errors in data transfer between source and destination. (BL-3)
<b>CO _3</b>	Obtain the skills of sub netting and routing mechanisms. (BL-2)
<b>CO _4</b>	Illustrate reliable, unreliable communication on public networks. (BL-3)
<b>CO _5</b>	Demonstrate the elements of socket programming, principles of protocols. (BL-3)

**COURSE NAME: FULL STACK DEVELOPMENT (24MC302)**

<b>24MC302</b>	<b>COMPUTER NETWORKS</b>
<b>CO _1</b>	gain knowledge to develop dynamic web pages using HTML, CSS <b>(BL-2)</b>
<b>CO _2</b>	Learn the basics of Java Script <b>(BL-2)</b>
<b>CO _3</b>	Demonstrate server-side scripting with PHP language <b>(BL-2)</b>

<b>CO _4</b>	gain knowledge of server-side scripting, validation of forms <b>(BL-2)</b>
<b>CO _5</b>	Working with XML and processing of XML Data . <b>(BL-3)</b>

**COURSE NAME: DATA SCIENCE (24MC303)**

<b>24MC303</b>	<b>DATA SCIENCE</b>
<b>CO _1</b>	Memorize the statistics concepts applicable to data science <b>(BL-1)</b>
<b>CO _2</b>	Demonstrate data analysis, manipulation and visualization of data using Python libraries such as Pandas, Matplotlib and Plotly etc. <b>(BL-2)</b>
<b>CO _3</b>	Enumerate machine learning algorithms. <b>(BL-1)</b>
<b>CO _4</b>	Analyze the various applications of data science. <b>(BL-4)</b>
<b>CO _5</b>	To demonstrate the clustering algorithms . <b>(BL-3)</b>