

DEPARTMENT OF COMPUTER APPLICATIONS::VRSEC

MCA III -YEAR (Semester-V and Semester-VI) (MCA19 Regulations)

S.No	Course Code	Course Title	Course Outcomes
1	19MCA2501	Python Programming	Upon successful completion of the course, the student will be able to: <ul style="list-style-type: none">• Understand the use of procedural statements assignments, conditional statements, method calls.• Recognize the variables, expressions and statements and test small Python programs that meet requirements.• Understand iterating loops and string functions, files, lists, dictionaries and tuples of basic Python Programming.
2	19MCA2502	Big Data Analytics	Upon successful completion of the course, the student will be able to: <ul style="list-style-type: none">• Examine the concepts of Big Data and Big Data Analytics• Analyze Hadoop Architecture and Hadoop Distributed File System• Acquire knowledge on MapReduce Framework and HBase• Evaluate the process of storing data in RDBMS and Hadoop
3	19MCA2503A	Machine Learning	Upon successful completion of the course, the student will be able to: <ul style="list-style-type: none">• Recognize the characteristics of machine learning, binary classification.• Apply the algorithms to a real world problem.• Understand a wide variety of learning algorithms.• Analyze Genetic and Neural network algorithms.
4	19MCA2503B	Cloud Computing	Upon successful completion of the course, the student will be able to: <ul style="list-style-type: none">• Analyze the architecture, services and models of cloud computing.• Deploy applications for storing data and accessibility in different cloud ecosystems.

			<ul style="list-style-type: none"> • Interpret local cloud and virtualization techniques based on application requirements • Identify real time cloud applications in different scenarios appropriate to society.
5	19MCA2503C	Web Mining	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the basic concepts and techniques of information retrieval, web search for extracting knowledge from the web. • Understand the different knowledge discovery issues in data mining from the World Wide Web. • Understand architecture and main algorithms commonly used by web mining applications. • Learn document structures and grouping. • Use the probabilistic models for web mining.
6	19MCA2503D	Software Project Management	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Examine different project contexts and suggest an appropriate management strategy. • Analyze the strategies required for managing projects from their genesis to completion. • Evaluate software project planning, cost estimation, scheduling and automation. • Acquire the knowledge of managing, modern and future software projects.
7	19MCA2504A	Data Visualization	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Illustrate visualizations that represent the relationships contained in complex data sets and their interpretation. • Analyze and select appropriate data that can be used in order to create a visualization that answers a particular research application • Identify the statistical analysis needed to validate the trends present in data visualizations. • Choose leading open source software packages to create and publish visualizations that enable clear interpretations of big, complex and

			real world data.
8	19MCA2504B	Software Testing Methodologies	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the principles, functional, non-functional and performance testing. • Understand the concept that the testing is the last step before releasing software is performed at the end of software development life cycle. • Understand the necessity of testing teams. • Apply various tools for testing and use test director.
9	19MCA2504C	Information Retrieval Systems	<p>Upon successful completion of the course, the student will be :</p> <ul style="list-style-type: none"> • Interpret the functional processes and effectiveness of information storage • Utilize techniques and architectures necessary to speed up the retrieval process for information retrieval systems. • Apply metadata organization for effective information access. • Evaluate and use different information retrieval techniques in various application areas.
10	19MCA2504D	Wireless and Mobile Networks	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Analyze the basic concepts of wireless communication and Wireless Networks. • Compare WPAN, WMAN and WWAN technologies. • Interpret 3G and 4G technologies of communications. • Examine the concepts of Wireless Adhoc Networks and the Research Issues in Wireless Networks.
11	19MCA3505A	Database Administration	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Familiarize with various jobs of a Database Administrator. • Recognize the locking mechanisms. • Identify the features of memory and process architecture.

12	19MCA3505A	Network Administration	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the role of administrator, meta principles of system administration, system components and network communities. • Design and configuring workstations with various models, controlling resources and also integrating multiple OS's. • Summarize diagnostics, fault and change management and also provide various services. • Apply network level services and security.
13	19MCA3505C	E-Commerce	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the various components of electronic commerce. • Analyze Inter-organizational business scenarios involving Electronic Data Interchange. • Recognize the dimensions of internal electronic commerce systems. • Examine the Information search and retrieval through Multimedia.
14	19MCA3505D	IOT	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the concepts and protocols related to Internet of Things. • Analyse trade-offs in interconnected wireless embedded device networks. • Illustrate key technologies, protocols and standards in Internet of Things.
15	19MCA3505F	Introduction to AngularJS	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the basic concepts of AngularJS, Ajax & jQuery. • Understand of framework of AngularJS. • Develop different AngularJS components of web application. • Implement Single page Web Application.
16	19MCA2551	Python Programming Lab	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand well the use of procedural statements, assignments, conditional statements, method calls. • Recognize the variables, expressions and statements and test Python

			<p>programs that meet requirements.</p> <ul style="list-style-type: none"> • Understand iterating loops and string functions of basic python programming. • Understand writing functions, working with files, lists, dictionaries, tuples and their methods of basic python programming.
17	19MCA2552	Big Data Analytics Lab	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Examine the concepts of Big Data and Big Data Analytics. • Learn to work with ecosystems available in Hadoop. • Acquire knowledge on MapReduce Framework. • Evaluate the process of storing data in Hive.
18	19MCA4553	Mini Project	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Transform the theoretical knowledge studied so far into a working model of a computer/information system. • Gain experience in industry, academic institutions and research laboratories and implementation of a small project. • Acquire the necessary confidence to carry out major project in the final year.
19	19MCA4651	Major Project	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Develop quality software using the software engineering principles • Perform coding for the project using latest programming languages. • Perform various systems testing techniques/strategies to include the phases of testing. • Work effectively as an individual or as a team member to produce correct, efficient, well-organized and documented programs in a reasonable time.

MCA II -YEAR (Semester –III and Semester-IV)
(MCA20 Regulation)

S.No	Course Code	Course Title	Course Outcomes
1	20MCA2301	Machine Learning	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Recognize the characteristics of machine learning, binary classification. • Apply the algorithms to a real world problem. • Understand a wide variety of learning algorithms. <p>Analyze Genetic and Neural network algorithms.</p>
2	20MCA2302	Cyber Security	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Evaluate the issues related to different types of activities in cyber crime. • Examine the security challenges on mobile devices. • Analyze the tools and methods used in cybercrime. • Interpret the strengths and weaknesses of Indian IT Act.
3	20MCA2303A	Computer Graphics	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Analyze the basics of Computer graphics and Graphical user interface. • Apply computer graphics primitive operations and its attributes. • Demonstrate different 2D/3D object transformations and viewing techniques. • Create various concepts related to Animation and Multimedia
4	20MCA2303B	Distributed Systems	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • List the principles of distributed systems and describe the problems and challenges associated with these principles . • Understand Distributed Computing techniques, synchronous and processes. • Design a distributed system that fulfills requirements with regards to key distributed systems properties. • Apply Distributed web-based system.
5	20MCA2303C	Advanced Database Technology	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Familiarize with EER models and Relational Algebra Operations. • Analyze various techniques of Hashing and Indexing. • Assess the importance of Database Tuning and Security.

			<ul style="list-style-type: none"> • Create the data fragments for effective Query Processing.
6	20MCA2303D	Human Computer Interaction	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the human interaction characteristics in the design process. • Recognize the screen elements for presenting information simply and effectively. • Create an user interface using various software tools.
7	20MCA2304	Industrial Management	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Gain knowledge on how to apply the managerial functions and principles in an organization. They also gain knowledge on objectives of business and social responsibilities of business. • Learn how to associate with peers, superiors and other employees in an organization • Understanding the financial goals and investment decisions based on the requirement of business through knowledge on financial management. • Get knowledge on human resource planning, recruitment, selection, training, career development, performance appraisal and motivation.
8	20MCA2305	Big Data Analytics	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Examine the concepts of Big Data and Big Data Analytics • Analyze Hadoop Architecture and Hadoop Distributed File System • Acquire knowledge on MapReduce Framework and HBase • Evaluate the process of storing data in RDBMS and Hadoop
9	20MCA2351	Machine Learning with Python Lab	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Recognize the characteristics of machine learning, binary classification • Apply the algorithms to a real problem • Understand a wide variety of learning algorithm • Analyze Genetic and Neural network algorithms.
10	20MCA2352	Advanced Java Programming Lab	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Create swing based applications. • Create Java applications that interact with database using JDBC. • Develop web applications with Servlets. • Develop web applications using JSP..
11	20MCA3353	Mini Project	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Transform the theoretical knowledge studied so far into a working model of a

			<p>computer/information system.</p> <ul style="list-style-type: none"> • Gain experience in industry, academic institutions and research laboratories and implementation of a small project. • Acquire the necessary confidence to carry out major project in the final year.
12	20MCA2401A	Software Testing Methodologies	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the principles, functional, non-functional and performance testing. • Understand the concept that the testing is the last step before releasing software is performed at the end of software development life cycle. • Understand the necessity of testing teams. • Apply various tools for testing and use test director.
13	20MCA2401B	Angular JS	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Understand the basic concepts of AngularJS, Ajax & jQuery. • Understand of framework of AngularJS. • Develop different AngularJS components of web application. • Implement Single page Web Application.
14	20MCA2401C	Cloud Computing	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Analyze the architecture, services and models of cloud computing. • Deploy applications for storing data and accessibility in different cloud ecosystems. • Interpret local cloud and virtualization techniques based on application requirements • Identify real time cloud applications in different scenarios appropriate to society.
15	20MCA3451	Major Project	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> • Develop quality software using the software engineering principles • Perform coding for the project using latest programming languages. • Perform various systems testing techniques/strategies to include the phases of testing. • Work effectively as an individual or as a team member to produce correct, efficient, well-organized and documented programs in a reasonable time.