



# R.M.K. ENGINEERING COLLEGE

(An Autonomous Institution)

R.S.M Nagar, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu- 601206  
Affiliated to Anna University, Chennai / Approved by AICTE, New Delhi/Accredited by NAAC with A+ Grade  
An ISO 9001:2015 Certified Institution / All the Eligible UG Programs are Accredited by NBA, New Delhi

## Department of Computer Science and Business Systems

### COURSE OUTCOMES

#### 2022 – 2023 EVEN SEMESTER

Sl. No.	Semester	Course Code	Course Title
1	4	20CB401	Operating Systems + Lab (Unix)
2	4	20CB402	Database Management Systems + Lab
3	4	20CB403	Software Design with UML + Lab
4	4	20CB404	Introduction to Innovation, IP Management and Entrepreneurship
5	4	20EL401	Business Communication and Value Science – III
6	4	20CB405	Operations Research + Lab
7	4	20CB406	Marketing Research & Marketing Management
8	4		Essence of Indian Traditional Knowledge (Non-Credit)
9	4		Aptitude and Coding Skills – II (Non-Credit)
10	4		Universal Human Values 2: Understanding Harmony (Non-Credit)
11	6	20CB601	Computer Networks + Lab
12	6	20CB602	Information Security + Lab
13	6	20CB603	Artificial Intelligence + Lab
14	6	20CB604	Finance and Cost Accounting
15	6	20EL601	Business Communication and Value Science - IV
16	6	20CB908	Modern Web Applications + Lab (Professional Elective II)
17	6	20CB910	Modern Enterprise Systems (Professional Elective III)
18	6	20CS614	Advanced Aptitude and Coding Skills – II



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### FOURTH SEMESTER

#### 20CB401 OPERATING SYSTEMS + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Implement the various System calls
CO2	Understand the concepts of Processes
CO3	Apply various processor scheduling algorithms and thread mechanism
CO4	Analyse process synchronization and deadlock problems
CO5	Apply various memory management techniques to given situation
CO6	Apply various file management techniques

#### 20CB402 DATABASE MANAGEMENT SYSTEMS + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Design and deploy an efficient & scalable data storage node for varied kind of application requirements
CO2	Map ER model to Relational model to perform database design effectively
CO3	Write queries using normalization criteria and optimize queries
CO4	Compare and contrast various indexing strategies in different database systems
CO5	Appraise how advanced databases differ from traditional databases

#### 20CB403 SOFTWARE DESIGN WITH UML + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Express software design with UML diagrams
CO2	Design software applications using OO concepts
CO3	Identify various scenarios based on software requirements
CO4	Covert the analysis phase to design modelling
CO5	Analyse the static structure diagrams



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<b>CO6</b>	Analyse the dynamic structure diagrams
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### 20CB404 INTRODUCTION TO INNOVATION, IP MANAGEMENT & ENTREPRENEURSHIP

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the basics of Innovation and Entrepreneurship
CO2	Manage an innovation program
CO3	Create, protect, assetize and commercialize intellectual property
CO4	Understand opportunities and challenges for entrepreneurs
CO5	Developing mindsets to pursue entrepreneurship
CO6	Identify and discover market needs

### 20CB405 OPERATIONS RESEARCH + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the characteristics of different types of decision-making environments
CO2	Use the optimization techniques for use engineering and Business problems
CO3	Build and solve Transportation Models and Assignment Models
CO4	Manage inventory control
CO5	Apply queuing theory for solving real world problems

### 20CB406 MARKETING RESEARCH AND MARKETING MANAGEMENT

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the marketing concepts and its evolution
CO2	Analyze the market based on segmentation, targeting and positioning
CO3	Leverage marketing concepts for decision making on product, price, promotion mix and distribution
CO4	Apply the concepts of market research and analyse data using statistical tools
CO5	Apply internet marketing strategies for businesses



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#### ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE (Non -Credit)

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Facilitate the students with the concepts of Indian traditional knowledge
CO2	Analyse and apply traditional knowledge to their day-to-day life

#### UNIVERSAL HUMAN VALUES 2: UNDERSTANDING HARMONY (Non -Credit)

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Would become more aware of themselves, and their surroundings (family, society, nature)
CO2	Would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind
CO3	Would have better critical ability
CO4	Would become sensitive to their commitment towards what they have understood (human values, human relationship and human society)
CO5	Would be able to apply what they have learnt to their own self in different day-to-day settings in real life, at least a beginning would be made in this direction

#### APTITUDE AND CODING SKILLS – II (Non-Credit)

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Develop advanced vocabulary for effective communication and reading skills
CO2	Build an enhanced level of logical reasoning and quantitative skills
CO3	Develop error correction and debugging skills in programming
CO4	Apply data structures and algorithms in problem solving



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### SIXTH SEMESTER

#### 20CB601

#### COMPUTER NETWORKS + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the classification of computer networks, basic layers and its functions, protocols and transmission media in computer networks.
CO2	Examine the performance of different types of networks and techniques for bandwidth utilization.
CO3	Inspect the functionalities of data link and media access control protocols.
CO4	Examine different routing algorithms.
CO5	Identify appropriate protocol to be used at the transport layer.
CO6	Explain the working of various application layer protocols and network security.

#### 20CB602

#### INFORMATION SECURITY + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Implement of information security and its parameters.
CO2	Implement various access control models and security policies.
CO3	Implement the system design effectively.
CO4	Implement logic-based system design effectively.
CO5	Capable to work with UNIX system calls.
CO6	Student will be able to work with UNIX programming by various methods.

#### 20CB603

#### ARTIFICIAL INTELLIGENCE + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Demonstrate fundamental understanding of artificial intelligence (AI) and its problem solving techniques.
CO2	Explain how Artificial Intelligence enables capabilities that are beyond conventional technology.
CO3	Implement and execute searching in AI.
CO4	Understand how to represent the knowledge and its approaches.
CO5	Acquaint the Artificial Intelligence techniques for building well-engineered and efficient intelligent systems.

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### 20CB604 FINANCIAL AND COST ACCOUNTING

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Remember the importance and usefulness of the accounting concepts and their managerial implications.
CO2	Understand the financial statements and the underlying principles and learn to interpret financial statements.
CO3	Analyse the usefulness of the accounting concepts and their managerial implications in business management.
CO4	Apply the financial and cost accounting, different types of costing and also cost, financial accounting.
CO5	Apply cost concepts in public sector.

### 20EL601 BUSINESS COMMUNICATION AND VALUE SCIENCE-IV

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the importance of diversity in workplace.
CO2	Apply emotional intelligence in real life scenarios.
CO3	Recognize the best practices of communicative writing.
CO4	Understand the importance of corporate social responsibility (CSR).
CO5	Recognize the importance of time management.
CO6	Apply knowledge of multiple intelligences and learning styles in interpersonal interactions.
CO7	Recognize the impact of stress in life and work.
CO8	Understand how stress impacts life and work.
CO9	Identify the best practices to manage stress.
CO10	Recognize the attributes needed to function and grow in a corporate environment.
CO11	Recognize the best practices to share and receive feedback.
CO12	Identify the best time management practices.

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### 20CB908 MODERN WEB APPLICATIONS + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Implement various forms of web applications.
CO2	Implement various features of HTML.
CO3	Implement various features of CSS.
CO4	Implement scripts using java script and HTML.
CO5	Implement front end framework for web pages.
CO6	Implement back-end technologies for web pages.

### 20CB910 MODERN ENTERPRISE SYSTEMS

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand basic elements of Enterprise systems.
CO2	Develop skills in understanding architecture and non-functional requirements in developing Enterprise system development and their deployment.
CO3	Understand Enterprise Patterns.
CO4	Develop enterprise applications.
CO5	Understand future trends in Enterprise architectures.

### 20CS614 ADVANCED APTITUDE AND CODING SKILLS - II

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Develop advanced vocabulary for effective communication and reading skills.
CO2	Build an enhanced level of logical reasoning and quantitative skills.
CO3	Develop error correction and debugging skills in programming.
CO4	Apply data structures and algorithms in problem solving.

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