



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

2021 – 2022 ODD SEMESTER

Sl. No.	Semester	Course Code	Course Title
1	3	20MA304	Computational Statistics + Lab
2	3	20CB301	Formal Language and Automata Theory
3	3	20CB302	Computer Organization and Architecture
4	3	20CB303	Object Oriented Programming + Lab
5	3	20CB304	Software Engineering + Lab
6	3	20CB305	Financial Management
	3		Indian Constitution (Non-Credit)
	3		Aptitude and Coding Skills – I (Non-Credit)

2021 – 2022 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
	4		Essence of Indian Traditional Knowledge (Non-Credit)
	4		Aptitude and Coding Skills – II (Non-Credit)
	4		Universal Human Values 2: Understanding Harmony (Non-Credit)



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

THIRD SEMESTER

20CB301 FORMAL LANGUAGE AND AUTOMATA THEORY

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Construct automata, regular expression for any pattern
CO2	Write Context free grammar for any construct
CO3	Design Turing machines for any language
CO4	Propose computation solutions using Turing machines
CO5	Derive whether a problem is decidable or not

20CB302 COMPUTER ORGANIZATION AND ARCHITECTURE

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the basic principles and operations of digital computers
CO2	Design Arithmetic and Logic Unit
CO3	Perform fixed- and floating-point operations
CO4	Develop pipeline architectures for RISC Processors
CO5	Understand Parallel Processor Architectures
CO6	Understand Various Memory systems & I/O interfacing

20CB303 OBJECT ORIENTED PROGRAMMING + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand basic Java language syntax
CO2	Apply Object Oriented programming concepts like Data Abstraction, Encapsulation in Java
CO3	Analyse and apply different types of inheritance and polymorphism
CO4	Use collections for solving real-time problems
CO5	Develop multi-threaded applications in Java



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

20CB304 SOFTWARE ENGINEERING + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand engineering approach to software development, software quality and reliability
CO2	Manage project schedule, estimate project cost and effort required
CO3	Summarize the concepts of software requirement analysis and design
CO4	Identify the need for software metrics and measure of code and design quality
CO5	Compare and contrast various testing methodologies
CO6	Identify the need and importance of Object-Oriented Analysis, Design and Construction

20CB305 FINANCIAL MANAGEMENT

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Understand the fundamental concepts of financial management
CO2	Apply valuation of securities and calculate the risk & return in portfolio management
CO3	Analyse the cost structure of a company using operating and financial leverages
CO4	Develop capital budgets and to estimate working capital
CO5	Apply cash management in business

20MA304 COMPUTATIONAL STATISTICS + LAB

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Analyse the multiple linear regression models
CO2	Estimate the multivariate analysis of variance and covariance
CO3	Distinguish discriminant and component analysis
CO4	Apply the factor analysis techniques in data analysis
CO5	Correlate the concepts of cluster analysis in data analytics



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

INDIAN CONSTITUTION (Non-Credit)

CO	OUTCOME: Upon completion of the course, students will be able to
CO1	Have the knowledge on Indian Constitution

APTITUDE AND CODING SKILLS – I (Non-Credit)

COs	OUTCOMES: Upon completion of the course, students will be able to
CO1	Develop vocabulary for effective communication and reading skills
CO2	Build the logical reasoning and quantitative skills
CO3	Develop error correction and debugging skills in programming



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

2021 – 2022 EVEN 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
CO6	Analyse the dynamic structure diagrams



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

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



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

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