



R.M.K. ENGINEERING COLLEGE

(An Autonomous Institution)

R.S.M Nagar, Kavaraipeetai, 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 21001:2018 Certified Institution / All the Eligible UG Programs are accredited by NBA, New Delhi



Department of Computer Science and Design

Course Outcomes

EVEN Semester 2025-26

Sl. No.	Semester	Theory/ Practical	Course Code / Course Name
1	4	Theory with Practical	Probability and Statistics (Lab Integrated)
2	4	Theory with Practical	Operating Systems (Lab Integrated)
3	4	Theory with Practical	Professional Elective I - Design and Analysis of Algorithms (Lab Integrated)
4	4	Theory with Practical	Web Development Frameworks (Lab Integrated)
5	4	Theory with Practical	Design Programming (Lab Integrated)
6	4	Practical	Product Development Lab – 2
7	4	Practical	Aptitude and Coding Skills II

Sl. No.	Semester	Theory/ Practical	Course Code / Course Name
1	5	Theory	Professional Ethics
2	5	Theory	Open Elective II - Industrial IOT Applications
3	5	Theory with Practical	Principles of UI/UX (Lab Integrated)
4	5	Theory with Practical	Object Oriented Software Engineering (Lab Integrated)

5	5	Theory with Practical	Professional Elective IV - Game Design (Lab Integrated)
6	5	Theory with Practical	Professional Elective V - Rest Application Development Using Spring Boot and JPA (Lab Integrated)
7	5	Theory with Practical	Advanced Aptitude and Coding Skills II

EVEN Semester 2025-26

3rd Semester – B.E. Computer Science and Design

24MA401-Probability and Statistics (Lab Integrated)	
Cos	Course Outcome: Upon completion of the course, the students will be able to:
CO1: Compute the statistical measures of standard distributions.	
CO2: Apply joint, marginal and conditional distributions to solve practical problems	
CO3: Determine the correlation and regression for two-dimensional random variable	
CO4: Employ the concept of testing of hypothesis to solve real life problems.	
CO5: Apply the concept of analysis of variance for various experimental designs	
CO6: Prepare the control charts for variables and attributes for analyzing the data.	

24CS304- Operating Systems (Lab Integrated)	
Cos	Course Outcome: Upon completion of the course, the students will be able to:
CO1: Demonstrate the basic concepts of operating systems and process.	
CO2: Implement process management techniques using inter-process communication.	
CO3: Implement the concepts of process synchronization and deadlocks	
CO4: Apply various memory management schemes for the suitable scenario	
CO5: Describe various I/O and file management techniques.	
CO6: Develop practical skills in developing system-level programming.	

24CS402- Design and Analysis of Algorithms (Lab Integrated)

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Understand the different algorithm design paradigms.

CO2: Design algorithms for real world problems using algorithmic design techniques.

CO3: Analyse the efficiency of simple recursive and non-recursive algorithms

CO4: Analyse the algorithm's worst, best and average case behaviour in terms of time and space.

CO5: Understand the approximation algorithms for solving NP Hard problems.

CO6: Solve the problems by selecting suitable algorithmic design techniques.

24IT402- Web Development Frameworks (Lab Integrated)

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Understand and apply modern web technologies including HTML5, CSS3, JavaScript, and advanced TypeScript concepts to build dynamic web components.

CO2: Develop responsive and modular front-end applications using ReactJS, including component creation, state management, and routing.

CO3: Implement advanced React features like hooks (useState, useEffect, useRef), React Router, and REST API integration using Axios for dynamic content handling.

CO4: Utilize higher-order components (HOCs), lazy loading, and server-side rendering to optimize and abstract React applications.

CO5: Perform unit testing using Jest and RTL, and manage global application state efficiently using Context API and Redux.

CO6: Design and deliver scalable and real-world enterprise web applications with complete user interface flow, security, and error handling.

24CD901- Design Programming Integrated) – Professional Elective I

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Learn about Blender interface

CO2: Understand Texture Mapping and Rendering

CO3: Analyse Text to Mesh Object and Curve conversion

CO4: Know the scripting fundamentals

CO5: Understand accessing game objects

CO6: Develop and animate a game character

Laboratory

24ME411- PRODUCT DEVELOPMENT LAB – II

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1 : Understand the working and capacity of various engineering systems.

CO2 : Infer the outcomes in the product development process.

CO3 : Perform basic engineering and material characterization tests.

CO4 : Demonstrate the ability to provide conceptual design strategies for a product.

CO5 : Implement the Science, Engineering, Technology and Mathematics (STEM) for product design.

24CS411 - APTITUDE AND CODING SKILLS – II

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Develop advanced vocabulary for effective communication 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.

CO5: Develop advanced vocabulary for effective reading skills

CO6: Apply advanced algorithm design techniques to develop programs

EVEN Semester 2025-26

5th Semester – B.E. Computer Science and Design

22 CS603 – PROFESSIONAL ETHICS

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Summarize the importance of human values in work place.

CO2: Discuss the senses of engineering ethics, moral dilemmas, moral autonomy and uses of ethical theories

CO3: Describe the role of engineers as responsible experimenters and necessity of codes of ethics in engineering

CO4: Explain safety, risk, responsibilities and rights in the society.

CO5: Analyze the global issues related to environmental ethics, computer ethics, weapons development and the role of engineers as expert witnesses and advisors.

CO6: Apply ethics in society and discuss the ethical issues related to engineering

22CD601 – PRINCIPLES OF UI/UX DESIGN (Lab Integrated)

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Understand the principles of User Interface (UI) Design in order to design with intention.

CO2: Learn the effective User eXperience (UX) and the psychology behind user decision

CO3: Understand the importance of UX process and user Psychology.

CO4: Elucidate the implications for designing web application with multimedia effects

CO5: Create Wireframe and Prototype

CO6: Develop the ability to work collaboratively within design teams and articulate design ideas and decisions effectively

22CS602- OBJECT ORIENTED SOFTWARE ENGINEERING (Lab Integrated)

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Summarize software engineering principles and activities involved in building large software programs.

CO2: Describe the different phases of software development.

CO3: Explain the basics of OOAD and develop software using object oriented design.

CO4: Illustrate the different stages of the design process with a case study.

CO5: Develop miniprojects using the application of object oriented analysis and design.

CO6: Apply different testing strategies to develop efficient projects

Professional Elective IV- 22CD919 – GAME DESIGN (Lab Integrated)

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1: Use the Fundamental principles of Game Design and Development in context.

CO2: Able to apply AI techniques in Game Design and Development.

CO3: Thoroughly understand the detailed processes of the Game Engine.

CO4: Design simple 2D games using the design and development process learnt.

CO5: Implement simple 3D games using the design and development process learnt.

CO6: Understand the principles of character modeling, texturing, and rigging.

Professional Elective V- 22IT910 – Rest Application Development Using Spring Boot and JPA (Lab Integrated)

Cos Course Outcome: Upon completion of the course, the students will be able to:

CO1:	Create simple applications using RESTful APIs and effectively manage HTTP methods within the Spring Boot framework.
CO2:	Apply database connectivity with JPA, utilizing advanced queries to interact with the database.
CO3:	Build applications using Spring Boot and perform CRUD operations efficiently using JPQL.
CO4:	Demonstrate the implementation of various relational mappings in JPA, including one- to one and one-to-many associations.
CO5:	Develop real-time applications that integrate user interfaces and utilize Spring AOP for method interception and advice handling.
CO6:	Apply security measures to REST APIs using Spring Security and JWT to protect sensitive data and ensure secure communication between clients and servers.

22CS611 – ADVANCED APTITUDE AND CODING SKILLS - II	
Cos	Course Outcome: Upon completion of the course, the 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.
CO5:	Develop coding solutions for real-world problems.
CO6:	Engage in collaborative projects and provide constructive feedback during code reviews.