



R.M.K. ENGINEERING COLLEGE

(An Autonomous Institution)

RSM Nagar, Kavaraipettai – 601 206

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES: ODD Semester 2025-26



List of Courses

S. No.	Regulation	Semester	Category of Courses	Course Code / Course Name
1.	R2024 (Students admitted during 2024-25)	3	Theory	24GE301 - Universal Human Values 2: Understanding Harmony
2.		3	Theory	24MA304 - Fourier Analysis and Partial Differential Equations
3.		3	Theory	24ME301 - Engineering Thermodynamics
4.		3	Theory with Lab Component	24ME302 - Applied Mechanics and Strength of Materials
5.		3	Theory with Lab Component	24CS302 - Advanced Java Programming
6.		3	Theory with Lab Component	24IT201 - Data Structures and Algorithms
7.		3	Practical	24ME311 - Product Development Lab – 1 (Design Thinking Phase)
8.		3	Employability Enhancement Courses	24CS311 - Aptitude and Coding Skills - I
9.		3	Employability Enhancement Courses	24ME312 - Internship/Seminar (1 Week)
10.		3	Audit Course	24MC301 - Indian Constitution (Non-Credit)
11.	R2022 (Students admitted during 2023-24)	5	Theory	22ME501-Design of Machine Elements
12.		5	Theory with Lab Component	22ME906-Applied Hydraulics and Pneumatics (Professional Elective-II)
13.		5	Theory	22ME910-Renewable Energy Sources (Professional Elective-III)
14.		5	Theory	22EE936-Electric and Hybrid Vehicle (Open Elective-I)
15.		5	Theory with Lab Component	22ME502-Mechanics of Machines
16.		5	Theory with Lab Component	22ME503-Basics of Product Lifecycle Management
17.		5	Practical	22CS511-Advanced Aptitude and Coding Skills I
18.		5	Employability Enhancement Courses	22ME511-Internship

S. No.	Regulation	Semester	Category of Courses	Course Code / Course Name
19.	R2022 (Students admitted during 2022-23)	7	Theory	22CE701 - Professional Ethics in Engineering
20.		7	Theory	22ME921 - Entrepreneurship Development (Professional Elective VI)
21.		7	Theory	22EC006 - Robotic Systems (Open Elective III)
22.		7	Theory	22CE916 - Air Pollution and Control Engineering (Open Elective IV)
23.		7	Theory with Lab Component	22ME701 - Finite Element Analysis
24.		7	Theory with Lab Component	22ME702 - Industrial Automation and IoT
25.		7	Employability Enhancement Courses	22ME711 – Comprehension

COURSE OUTCOMES

SECOND YEAR - SEMESTER: 03

REGULATION: 2024 (Admitted in 2024-25)

Semester: III Course Name: 24GE301 - Universal Human Values 2: Understanding Harmony

Upon the completion of this course the students will be able to

S. No.	Course Outcomes	COs
C201.1	Develop self-awareness and a deeper understanding of their surroundings, including family, society, and nature.	CO1
C201.2	Identify and resolve inner conflicts based on natural acceptance.	CO2
C201.3	Become more responsible towards life, and handle problems with sustainable solutions by considering human relationships and natural harmony.	CO3
C201.4	Enhance their critical thinking and analyzing skills.	CO4
C201.5	Develop a stronger commitment towards human values, relationships, and societal well-being.	CO5
C201.6	Apply what they have learnt in different day-to-day settings in real life, and take the initial steps towards integrating these values into daily life.	CO6

Semester: III Course Name: 24MA304 - Fourier Analysis and Partial Differential Equations

Upon the completion of this course the students will be able to

S. No.	Course Outcomes	COs
C202.1	Obtain the Fourier series of periodic functions.	CO1
C202.2	Analyze the harmonics using Fourier series.	CO2
C202.3	Compute the Fourier transform of prescribed functions.	CO3
C202.4	Solve first order partial differential equations.	CO4
C202.5	Solve higher order partial differential equations.	CO5
C202.6	Apply the concept of Fourier series to solve wave and heat equations	CO6

Semester: III Course Name: 24ME301 – Engineering Thermodynamics

S. No.	Course Outcomes	COs
C203.1	Explain fundamental thermodynamic concepts and the First Law of Thermodynamics	CO1
C203.2	Apply the Second Law of Thermodynamics to evaluate the performance of heat engines, refrigerators, and heat pumps.	CO2
C203.3	Analyze thermodynamic properties of pure substances and apply First and Second Laws to steam-based power cycles.	CO3
C203.4	Evaluate the performance of gas power cycles such as Otto, Diesel, and Dual cycles and gas turbines.	CO4
C203.5	Describe the working and performance of air compressors and internal combustion engines.	CO5
C203.6	Solve engineering problems involving thermodynamic systems by applying thermodynamic laws, property relations, and cycle analysis techniques using diagrams, charts, and tables.	CO6

**Semester: III Course Name: 24ME302 - Applied Mechanics and Strength of Materials
(Theory with Lab Component)**

S. No.	Course Outcomes	COs
C204.1	Analyze forces and equilibrium in mechanical systems.	CO1
C204.2	Determine centroids, center of mass, and moments of inertia for various shapes and sections.	CO2
C204.3	Estimate the stresses, strains and deformations in solids under axial loading.	CO3
C204.4	Compute the bending and shearing stresses in beams subjected to loadings.	CO4
C204.5	Analyze the effect of torsion in shafts and springs, and compute stresses in thin cylinders.	CO5
C204.6	Calculate the stresses and deformation of solids subjected to various loads.	CO6

**Semester: III Course Name: 24CS302 - Advanced Java Programming
(Theory with Lab Component)**

S. No.	Course Outcomes	COs
C205.1	Implement various data structures by utilizing core Java features and libraries.	CO1
C205.2	Demonstrate proficiency in handling Java I/O operations, including file manipulation for efficient data storage and retrieval.	CO2
C205.3	Apply and Analyze the Stream API for functional programming and data processing.	CO3
C205.4	Implement advanced object serialization for complex data structures.	CO4
C205.5	Utilize regular expressions for text parsing and string manipulation.	CO5
C205.6	Build applications using advanced Java programming techniques.	CO6

**Semester: III Course Name: 24IT201 - Data Structures and Algorithms
(Theory with Lab Component)**

S. No.	Course Outcomes	COs
C206.1	Analyze and compare functions using asymptotic analysis and understand the concepts of basic data structures such as array and linked list.	CO1
C206.2	Applying a suitable algorithm for searching and sorting.	CO2
C206.3	Analyze the various tree algorithms for solving real time computing problems.	CO3
C206.4	Understanding graph algorithms, operations, and applications.	CO4
C206.5	Understanding the importance of hashing.	CO5
C206.6	Apply the appropriate data structure to solve real world problems.	CO6

**Semester: III Course Name: 24ME311 - Product Development Lab – 1
(Design Thinking Phase)**

S. No.	Course Outcomes	COs
C207.1	Identify, collect, and interpret relevant scholarly literature in the chosen research area.	CO1
C207.2	Evaluate existing research to identify gaps and formulate precise research questions.	CO2
C207.3	Apply brainstorming techniques to generate innovative and diverse research ideas.	CO3
C207.4	Analyze reviewed literature and research gap to effectively present a research problem with clarity and rationale.	CO4
C207.5	Develop skills in using evidence to create and present an engaging and critical argument.	CO5

Semester: III

Course Name: 24CS311 - Aptitude and Coding Skills – I

S. No.	Course Outcomes	COs
C208.1	Develop vocabulary for effective communication skills.	CO1
C208.2	Build the logical reasoning and enhance critical thinking.	CO2
C208.3	Develop error correction and debugging skills in programming.	CO3
C208.4	Apply programming skills to develop programs efficiently.	CO4
C208.5	Solve problems using quantitative skills.	CO5
C208.5	Develop effective reading and listening skills.	CO6

Semester: III

Course Name: 24ME312 - Internship/Seminar (1 Week)

S. No.	Course Outcomes	COs
C209.1	Demonstrate Professional and Ethical Responsibility.	CO1
C209.2	Understand the Global, Economic, Environmental, and Societal Impact of Engineering Solutions.	CO2
C209.3	Cultivate Research Skills and Lifelong Learning Abilities.	CO3
C209.4	Identify career paths based on individual abilities and create a report detailing work experience in the industry.	CO4
C209.5	Develop personal confidence to tackle diverse engineering tasks	CO5

COURSE OUTCOMES
THIRD YEAR - SEMESTER: 05
REGULATION: 2022 (Admitted in 2023-24)

Semester: V Course Name: 22ME501 - Design of Machine Elements

S. No.	Course Outcomes	COs
C301.1	Compute the stress acting on various machine elements.	CO1
C301.2	Discuss the dimensions, stress requirements of shaft and couplings based on various load conditions.	CO2
C301.3	Predict appropriate bearing, from the standard catalog for varied applications.	CO3
C301.4	Demonstrate the dimensions of the energy storing devices for specific applications.	CO4
C301.5	Summarize the temporary and permanent joints based on application requirements.	CO5
C301.6	Apply the various design concepts on to real time product applications.	CO6

**Semester: V Course Name: 22ME906-Applied Hydraulics and Pneumatics
 (Professional Elective-II)
 (Theory with Lab Component)**

S. No.	Course Outcomes	COs
C302.1	Analyze the methods in fluid power principles and working of hydraulic pumps.	CO1
C302.2	Distinguish the working of hydraulic actuators and control components.	CO2
C302.3	Summarize the basics of hydraulic circuits and systems.	CO3
C302.4	Explain the basics concept in pneumatic and electro pneumatic systems.	CO4
C302.5	Solve the trouble shooting of hydraulic and pneumatics circuits.	CO5
C302.6	Design a suitable fluid power circuit for the specific applications.	CO6

**Semester: V Course Name: 22ME910-Renewable Energy Sources
(Professional Elective-III)**

S. No.	Course Outcomes	COs
C303.1	Analyze the importance and Economics of renewable Energy	CO1
C303.2	Discuss the method of power generation from Solar Energy	CO2
C303.3	Describe the method of power generation from Wind Energy.	CO3
C303.4	Explain the method of power generation from Bio Energy.	CO4
C303.5	Differentiate the Tidal energy, Wave Energy, OTEC, Hydro energy and Geothermal Energy.	CO5
C303.6	Illustrate the importance of Fuel cells and Hybrid systems.	CO6

**Semester: V Course Name: 22EE936-Electric and Hybrid Vehicle
(Open Elective-I)**

S. No.	Course Outcomes	COs
C304.1	Electric and hybrid vehicle operation and architectures	CO1
C304.2	Design of hybrid and electric vehicles.	CO2
C304.3	Energy requirement for vehicles.	CO3
C304.4	Vehicle characteristics, operating modes, and performance parameters of the vehicle.	CO4
C304.5	Different subsystems of hybrid and electric vehicles	CO5

**Semester: V Course Name: 22ME502 – Mechanics of Machines
(Theory with Lab Component)**

S. No.	Course Outcomes	COs
C305.1	Design the basics of mechanism.	CO1
C305.2	Solve problems on gears and gear trains.	CO2
C305.3	Examine friction in machine elements.	CO3
C305.4	Calculate static and dynamic forces of mechanisms.	CO4
C305.5	Calculate the balancing masses and their locations of reciprocating and rotating masses.	CO5
C305.6	Computing the frequency of free vibration, forced vibration and damping coefficient	CO6

Semester: V Course Name: 22ME503- Basics of Product Lifecycle Management

S. No.	Course Outcomes	COs
C306.1	Explain the installation and maintenance procedure of software related to PLM.	CO1
C306.2	Understand the PLM and PDM functions in executing the task of enterprise.	CO2
C306.3	Demonstrate workflow, Project and search in PLM environment.	CO3
C306.4	Describe the case studies in detail.	CO4
C306.5	Discuss the PLM software interface.	CO5
C306.6	Illustrate design file integration with Windchill	CO6

Semester: V Course Name: 22CS511 - Advanced Aptitude and Coding Skills - I

S. No.	Course Outcomes	COs
C307.1	Develop vocabulary for effective communication and reading skills.	CO1
C307.2	Build the logical reasoning and quantitative skills.	CO2
C307.3	Develop error correction and debugging skills in programming.	CO3

Semester: V Course Name: 22ME511-Internship

S. No.	Course Outcomes	COs
C308.1	Demonstrate Professional and Ethical Responsibility.	CO1
C308.2	Understand the Global, Economic, Environmental, and Societal Impact of Engineering Solutions.	CO2
C308.3	Cultivate Research Skills and Lifelong Learning Abilities.	CO3
C308.4	Identify career paths based on individual abilities and create a report detailing work experience in the industry.	CO4
C308.5	Develop personal confidence to tackle diverse engineering tasks	CO5

COURSE OUTCOMES
FOURTH YEAR - SEMESTER: 07
REGULATION: 2022 (2022-23)

Semester: VII Course Name: 22CE701 - Professional Ethics in Engineering

S. No.	Course Outcomes	COs
C401.1	Summarize the importance of human values in workplace.	CO1
C401.2	Discuss the senses of engineering ethics, moral dilemmas, moral autonomy and uses of ethical theories.	CO2
C401.3	Describe the role of engineers as responsible experimenters and necessity of codes of ethics in engineering.	CO3
C401.4	Explain safety, risk, responsibilities and rights in the society.	CO4
C401.5	Analyze the global issues related to environmental ethics, computer ethics, weapons development and the role of engineers as expert witnesses and advisors.	CO5
C401.6	Apply ethics in society and discuss ethical issues related to engineering.	CO6

**Semester: VII Course Name: 22ME921 - Entrepreneurship Development
 (Professional Elective VI)**

S. No.	Course Outcomes	COs
C402.1	Understand the role of entrepreneur in economic growth of the nation.	CO1
C402.2	Explain the major motivation factors for becoming an entrepreneur.	CO2
C402.3	Classify, compare and analyze for setting up of a good business opportunity.	CO3
C402.4	Categorize the various sources of finance and method of accounting.	CO4
C402.5	Develop the business opportunity with the knowledge on Government taxation norms.	CO5
C402.6	Apply the knowledge for expanding business.	CO6

Semester: VII Course Name: 22EC006 - Robotic Systems (Open Elective III)

S. No.	Course Outcomes	COs
C403.1	Understand the basic concepts of a robot.	CO1
C403.2	Explain the use of various types of End Effectors.	CO2
C403.3	Explain the use of Various types of Sensors.	CO3
C403.4	Explain the Concepts of Robot Kinematics.	CO4
C403.5	Demonstrate the Robot Programming.	CO5
C403.6	Understand the Robot safety issues and economics.	CO6

**Semester: VII Course Name: 22CE916 - Air Pollution and Control Engineering
(Open Elective IV)**

S. No.	Course Outcomes	COs
C404.1	Summarize the nature and characteristics of air pollutants, noise pollution and basic concepts of air quality management.	CO1
C404.2	Identify, formulate and solve air pollution problems.	CO2
C404.3	Design stacks and particulate air pollution control devices to meet applicable standards.	CO3
C404.4	Select control equipment for gaseous contaminants.	CO4
C404.5	Ensure air quality control and preventive measures for air pollution.	CO5
C404.6	Apply all quality management measures in the real-time applications.	CO6

**Semester: VII Course Name: 22ME701 - Finite Element Analysis
(Theory with Lab Component)**

S. No.	Course Outcomes	COs
C405.1	Summarize the basics of finite element formulation using mathematical models of Boundary Value Problems.	CO1
C405.2	Apply finite element formulations to solve one-dimensional Problems.	CO2
C405.3	Discuss the finite element formulations to solve two-dimensional scalar Problems.	CO3
C405.4	Estimate the element matrices and vectors to solve two-dimensional Vector Problems.	CO4
C405.5	Explain the need for Isoperimetric transformation and the use of numerical integration.	CO5
C405.6	Compute real time primitive structural and thermal problems using finite element techniques.	CO6

Semester: VII Course Name: 22ME702 - Industrial Automation and IoT
(Theory with Lab Component)

S. No.	Course Outcomes	COs
C406.1	Identify key components and functions of industrial automation systems and IoT technologies.	CO1
C406.2	Recognize various types of sensors and actuators and their applications in industrial automation and IoT.	CO2
C406.3	Explain the PLC-based automation solutions and analyze the functionalities and capabilities of IoT platforms.	CO3
C406.4	Evaluate industrial communication protocols such as Modbus, MQTT, and CoAP for seamless data exchange in IoT-based automation systems.	CO4
C406.5	Investigate and apply IoT solutions in healthcare, power plants, Agriculture, inventory management, and quality control.	CO5
C406.6	Apply theoretical knowledge to real-world scenarios and demonstrate problem solving abilities in Industrial Automation and IoT contexts.	CO6

Semester: VII Course Name: 22ME711 – Comprehension

S. No.	Course Outcomes	COs
C407.1	Apply the knowledge gained in the previous semesters to solve the problems.	CO1
C407.2	Gain knowledge about the recent technological advancements.	CO2
C407.3	Develop lifelong learning abilities and improve the research skills.	CO3
C407.4	Identify career paths based on individual abilities.	CO4
C407.5	Build self-assurance to handle a variety of engineering tasks.	CO5



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Department of Mechanical Engineering
COURSE OUTCOMES: EVEN Semester 2025-26



S. No.	Regulation	Semester	Category of Courses	Course Code / Course Name
1	R2024 (Students admitted during the academic year 2024-25)	4	Theory	24ME901 - Engineering Materials and Metallurgy (Professional Elective – I)
2		4	Theory with Lab Component	24MA401 - Probability and Statistics
3		4	Theory with Lab Component	24ME401 - Applied Thermal Engineering
4		4	Theory with Lab Component	24ME402 - Manufacturing Processes
5		4	Theory with Lab Component	24ME403 - Mechanics of Machines
6		4	Theory with Lab Component	24IT402 - Web Development Frameworks
7		4	Practical	24ME411 - Product Development Lab - 2 (Functional Design Phase)
8		4	Employability Enhancement Courses	24CS411 - Aptitude and Coding Skills - II
9	R2022 (Students admitted during the academic year 2023-24)	6	Theory	22ME601-Design of Transmission Systems
10		6	Theory	22ME917- Principles of Management (Management Elective)
11		6	Theory	22ME913 - Power Plant Engineering (Professional Elective-IV)
12		6	Theory with Lab Component	22ME914 - Process Planning & Cost Estimation (Professional Elective-V)
13		6	Theory	22EC005 - Automotive Electronics (Open Elective-II)
14		6	Theory with Lab Component	22ME602-Heat and Mass Transfer
15		6	Theory with Lab Component	22ME603-Advanced Product Lifecycle Management
16		6	Employability Enhancement Courses	22CS611- Advanced Aptitude and Coding Skills II
17	R2022 (Students admitted during 2022-23)	8	Employability Enhancement Courses	22ME811 - Project work

COURSE OUTCOMES
SECOND YEAR - SEMESTER: 04
REGULATION – 2024 (2024-25)

Semester: IV Course Name: 24ME901 - Engineering Materials and Metallurgy
(Professional Elective – I)

S. No.	Course Outcomes	COs
C210.1	Understand the liquid –Solid transformational, Comprehensive understanding on Fe-Fe ₃ C Phase diagram.	CO1
C210.2	Explain various heat treatment processes applicable to ferrous and non-ferrous alloys.	CO2
C210.3	Select suitable ferrous and non-ferrous materials for various engineering applications based on their properties.	CO3
C210.14	Understand and evaluate the types, properties, and engineering applications of polymers, ceramics, and composites.	CO4
C210.5	Analyze deformation mechanisms, fracture behavior, and mechanical testing methods including hardness, impact, fatigue, and creep in engineering materials.	CO5
C210.6	Evaluate and apply the properties, applications, and mechanical behavior of metals, polymers, ceramics, and composites in engineering.	

Semester: IV Course Name: 24MA401 - Probability and Statistics

S. No.	Course Outcomes	COs
C211.1	Compute the statistical measures of standard distributions.	CO1
C211.2	Apply joint, marginal and conditional distributions to solve practical Problems.	CO2
C211.3	Determine the correlation and regression for two-dimensional random Variables.	CO3
C211.4	Employ the concept of testing of hypothesis to solve real life problems.	CO4
C211.5	Apply the concept of analysis of variance for various experimental designs.	CO5
C211.6	Prepare the control charts for variables and attributes for analyzing the data.	

Semester: IV Course Name: 24ME401 - Applied Thermal Engineering

S. No.	Course Outcomes	COs
C212.1	Apply nozzle design principles to optimize steam flow in a given system.	CO1
C212.2	Analyze and compute the engine parameters.	CO2
C212.3	Compare the performance of different types of boilers under various operating conditions.	CO3
C212.4	Assess the Performance of steam turbines in power generation.	CO4
C212.5	Calculate the COP of different refrigeration systems. Use psychrometric charts to calculate various properties.	CO5
C212.6	Apply thermal engineering principles to examine the performance of various thermal systems.	CO6

Semester: IV Course Name: 24ME402 - Manufacturing Processes

S. No.	Course Outcomes	COs
C213.1	Describe different manufacturing processes involved in the fabrication of components.	CO1
C213.2	Utilize metal cutting theories for efficient machining and explain the working principles of various lathes.	CO2
C213.3	Illustrate the operation of special-purpose machine tools.	CO3
C213.4	Explain different gear manufacturing techniques and surface finishing processes.	CO4
C213.5	Develop NC codes for machining operations.	CO5
C213.6	Apply manufacturing process concepts to design and create mechanical products or working models.	CO6

Semester: IV Course Name: 24ME403 - Mechanics of Machines

S. No.	Course Outcomes	COs
C214.1	Apply kinematic principles to optimize mechanical systems.	CO1
C214.2	Analyze gear mechanisms and automotive transmissions to address design challenges.	CO2
C214.3	Evaluate surface contacts, friction drives, and cam profiles for mechanical efficiency.	CO3
C214.4	Apply static and dynamic force analysis to solve problems in machine components.	CO4
C214.5	Determine balancing masses and compute vibration frequencies with damping effects.	CO5
C214.6	Evaluate mechanics and vibrations to develop engineering solutions.	CO6

Semester: IV Course Name: 24IT402 - Web Development Frameworks

S. No.	Course Outcomes	COs
C215.1	Understand and apply modern web technologies including HTML5, CSS3, JavaScript, and advanced TypeScript concepts to build dynamic web components.	CO1
C215.2	Develop responsive and modular front-end applications using ReactJS, including component creation, state management, and routing.	CO2
C215.3	Implement advanced React features like hooks (useState, useEffect, useRef), React Router, and REST API integration using Axios for dynamic content handling.	CO3
C215.4	Utilize higher-order components (HOCs), lazy loading, and server-side rendering to optimize and abstract React applications.	CO4
C214.5	Perform unit testing using Jest and RTL, and manage global application state efficiently using Context API and Redux.	CO5
C215.6	Design and deliver scalable and real-world enterprise web applications with complete user interface flow, security, and error handling.	CO6

**Semester: IV Course Name: 24ME411 - Product Development Lab - 2
(Functional Design Phase)**

S. No.	Course Outcomes	COs
C216.1	Interpret stakeholder needs and document comprehensive functional requirements for the proposed system.	CO1
C216.2	Develop functional block diagrams or flowcharts to represent system interactions and functional relationships.	CO2
C216.3	Analyze functional specifications that define roles, behaviors, constraints, and performance expectations for each function.	CO3
C216.4	Evaluate the defined functional model through verification and validation techniques to ensure alignment with original requirements.	CO4
C216.5	Analyze and present functional design solutions aligned with the identified research problem and gap.	CO5

Semester: IV Course Name: 24CS411 - Aptitude and Coding Skills - II

S. No.	Course Outcomes	COs
C217.1	Develop advanced vocabulary for effective communication skills.	CO1
C217.2	Build an enhanced level of logical reasoning and quantitative skills.	CO2
C217.3	Develop error correction and debugging skills in programming.	CO3
C217.4	Apply data structures and algorithms in problem solving.	CO4
C217.5	Develop advanced vocabulary for effective reading skills.	
C217.6	Apply advanced algorithm design techniques to develop programs.	

COURSE OUTCOMES
THIRD YEAR – SEMESTER: 06
REGULATION – 2022 (2023-24)

Semester VI Course Name: 22ME601 - Design of Transmission Systems

S. No.	Course Outcomes	COs
C309.1	Understand the concepts of design to belts, chains and rope drives.	CO1
C309.2	Explain the concepts of design to spur, helical gears.	CO2
C309.3	Discuss the concepts of design to worm and bevel gears.	CO3
C309.4	Summarize and apply the concepts of design to gear boxes.	CO4
C309.5	Demonstrate the concepts of advanced transmission systems	CO5
C309.6	Apply the design procedures in their projects	CO6

Semester: VI Course Name: 22ME917 - Principles of Management (Management Elective)

S. No.	Course Outcomes	COs
C310.1	Interpret management theories and analyze the complexities of managerial activities within a global business environment, integrating diverse perspectives to address contemporary challenges effectively.	CO1
C310.2	Evaluate and apply various decision-making strategies at different levels of management within organizations, synthesizing approaches to optimize decision outcomes and strategic alignment.	CO2
C310.3	Compare and contrast different types of organizational structures, evaluating their suitability and effectiveness in various contexts and industries.	CO3
C310.4	Describe the steps in the staffing process and stages in career development, integrating knowledge to design and implement effective talent management strategies that support organizational goals and employee growth.	CO4
C310.5	Analyze the processes of direction, coordination, and control within organizations, synthesizing their interrelationships and impacts on organizational performance and effectiveness.	CO5
C310.6	Evaluate and critique various controlling techniques used to maintain standards and ensure organizational performance, synthesizing best practices to develop comprehensive control systems aligned with organizational objectives.	CO6

Semester: VI

**Course Name: 22ME913 – Power Plant Engineering
(Professional Elective-IV)**

S. No.	Course Outcomes	COs
C311.1	Analyze various aspects of a Thermal Power Plant and its components.	CO1
C311.2	Interpret the Systems viz. Fuel and Ash Handling, Draught, Feed Water Cogeneration etc. associated with a Thermal Power Plant.	CO2
C311.3	Exemplify Diesel, Gas Turbine and Combined Cycle Power Plants besides analysis of Air Standard Cycles.	CO3
C311.4	Infer the Working Operation of various Nuclear Reactors and Magneto Hydro Dynamic power generation.	CO4
C311.5	Discuss environmental aspects and alternate sources of energy to reduce Pollution.	CO5
C311.6	Evaluate various factors of power. Calculate power generation cost .	CO6

Semester: VI

Course Name: 22ME914 - Process Planning and Cost Estimation

S. No.	Course Outcomes	COs
C312.1	Synthesize engineering fundamentals to develop comprehensive process planning strategies and methodologies for optimizing production activities.	CO1
C312.2	Evaluate and integrate diverse process planning tools, analyzing their applications and effectiveness in different manufacturing contexts.	CO2
C312.3	Critically analyze the components and factors influencing costing, synthesizing knowledge to understand their implications on decision-making and resource allocation.	CO3
C312.4	Develop various manufacturing methods and techniques to estimate product costs, integrating knowledge to inform strategic pricing and budgeting decisions.	CO4
C312.5	Evaluate and compare machining times for different operations across various machines, synthesizing data to optimize production scheduling and resource utilization.	CO5
C312.6	Integrate process planning and cost estimation concepts creatively to design efficient production processes, evaluating their impact on productivity, quality, and profitability.	CO6

Semester: VI Course Name: 22EC005 – Automotive Electronics (Open Elective-II)

S. No.	Course Outcomes	COs
C313.1	Describe the concept of automotive electronics trends and its evolution.	C01
C313.2	Interpret the basic principles and fundamentals of ignition and injection systems	C02
C313.3	List out the different types of sensors and define its working principle.	C03
C313.4	Classify and demonstrate various types of actuators used in automobiles	C04

Semester: VI Course Name: 22ME602 - Heat and Mass Transfer

S. No.	Course Outcomes	COs
C314.1	Explain the concept of one dimensional steady and transient heat conduction through various systems.	C01
C314.2	Discuss the concept of convection with the flow of fluids in different elements.	C02
C314.3	Associate the significance of phase change with heat transfer in heat exchangers.	C03
C314.4	Discuss the concept of radiation and application in heat transfer systems.	C04
C314.5	Understand the concept of mass transfer and its correlations.	C05
C314.6	Apply the conduction and convection principles in product application by real time study.	C06

Semester: VI Course Name: 22ME603 - Advanced Product Lifecycle Management

S. No.	Course Outcomes	COs
C315.1	Discuss the Product Lifecycle management architecture and data management.	C01
C315.2	Explain the roles of Product Lifecycle in service and maintenance.	C02
C315.3	Describe and Classify the varies ways of data representation.	C03
C315.4	Demonstrate the Product lifecycle management configuration and integration with CAM.	C04
C315.5	Illustrate the Integration of CAM with Product life cycle management.	C05
C315.6	Distinguish the data interfaces, GD&T, annotations, manufacturing notes, Integration of CAM with Product Lifecycle Management.	C06

Semester: VI Course Name: 22CS611 - Advanced Aptitude and Coding Skills – II

S. No.	Course Outcomes	COs
C316.1	Develop advanced vocabulary for effective communication and reading skills.	CO1
C316.2	Build an enhanced level of logical reasoning and quantitative skills.	CO2
C316.3	Develop error correction and debugging skills in programming.	CO3
C316.4	Apply data structures and algorithms in problem solving.	CO4

COURSE OUTCOMES
FOURTH YEAR - SEMESTER: 08
REGULATION – 2022 (2022-23)

Semester VIII Course Name: 22ME811 - Project Work

S.No.	Course Outcomes	COs
C409.1	Understand and explain the real time problems through literatures.	CO1
C409.2	Analyze the methods to develop solution to the systems.	CO2
C409.3	Classify, compare and analyze business opportunities for a new product.	CO3
C409.4	Summarize and prepare reports for the experimental determinations.	CO4
C409.5	Evaluate the performance and effectiveness of the existing systems.	CO5
C409.6	Apply the knowledge expanding business through new product design and development.	CO6