

## **Department of Mechanical Engineering**

## Course Outcomes (2019-20)

Course Name	e: ESE- KOE 033	C201	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will	l be able to:			
C201.1	Understand the different forms of energy available to us, their extraction and working principles of power plants & their working cycles.			working 2
C201.2	Understand the use of nuclear energy and extraction of this energy into useful energy i.e. electricity.			
C201.3	Understand about the solar energy which is available to us at free of cost and working principle of generation of electricity from solar power. (i.e. working of semiconductor)			working 2 iductor)
C201.4	Understand different types of non-conventional energy sources and mechanism of producing electrical enegy using these resources			nism of 2
C201.5	Analyze the concept of §	green energy building a	and LEED rating.	4

Course Name Communicat	e: Technical ion KAS301	C 202	Course Year:	2019 - 20
Sr. No		Course Outcomes		BL
Students will	be able to:			

C202.1	Students will be enabled to understand the nature and objective of Technical	
	Communication relevant for the work place as Engineers.	2
C202.2	Students will utilize the technical writing for the purposes of Technical Communication and its exposure in various dimensions	2
C202.3	Students would imbibe inputs by presentation skills to enhance confidence in face of diverse audience.	3
C202.4	Technical communication skills will create a vast know-how of the application of the learning to promote their technical competence.	6
C202.5	It would enable them to evaluate their efficacy as fluent & efficient communicators by learning the voice-dynamics.	5

Course Name KME301	e: Thermodynamics -	C 203	Course Year:	2019 - 20
Sr. No	Course Outcomes			
Students will	be able to:			
C203.1	Understand the thermodynamic systems, Properties, Cycle and different forms of energy, state different laws of thermodynamics and apply first law of thermodynamics on steady and non-steady flow devices			2
C203.2	Understand and analyze the working of Refrigerator, Heat Pump and Heat Engine and application of second law of thermodynamic. Understand the Principle of Increase of Entropy and evaluate the Quality of Energy.			4
C203.3	Analyze the availability & Unavailability of thermal system, second law efficiency and various thermodynamics relations.			4
C203.4	Apply knowledge to solve problems related to steam, analyze p-V and T-s diagram and understand the psychometric processes			4
C203.5	Analyze the refrigeration c	ycles, refrigerants and refriger	ation systems.	4

Course Name Fluid Machir	e: Fluid Mechanics & nes -KME302	C 204	Course Year:	2019 - 20
Sr. No		Course Outcomes		BL

Students w	rill be able to:	
C204.1		
	Understand the basics of fluid mechanics, Bernoulli's equation and its application.	2
C204.2	Analyze different types of flow, continuity equation and Buckingham's Pi theorem for dimensional analysis and apply these concepts to solve problems	4
C204.3	Analyze laminar and turbulent flow, losses in pipes, boundary layer theory and forces on submerged bodies and apply this knowledge to solve the problems	4
C204.4	Apply the principle of impact of jet and working of different types of turbines and evaluating the suitable turbines under different conditions	3
C204.5	Apply the principle and working of different types of pumps and other hydraulic devices evaluating the suitable pump under different conditions	3

Course Nan KME303	ne: Material Engg	C 205	Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students wi	ll be able to:				
C205.1	Analyze the properties of ferrous and non-ferrous materials				
C205.2	Analyse the mechanism of material failure under different loading.				
C205.3	C205.3 Analyse the microstructure properties and phase diagram of engineering materials.			4	
C205.4	Apply heat treatment method to modify the material properties.			3	
C205.5	Analyze effect of differ nonferrous alloys.	rent alloying elements of	on the properties of ferrous and	4	

Course Name Fluid Machin	e: Fluid Mechanics & nes Lab -KME351	C 206	Course Year:	2019 - 20
Sr. No		Course Outcomes		BL

Students w	vill be able to:	
C206.1	Apply the concept of the Impact of jet and orifice meter.	3
C206.2	Analyze different types of notches and and major losses in pipes	4
C206.3	Apply the concept of venturimeter, Bernoulli's theorem and Reynold's experiment.	3
C206.4	Analyze the concept of equilibrium of floating bodies and minor losses in pipes	4

Course Nam KME352	e: Material Testing Lab -	C 207	Course Year:	2019 - 20
Sr. No	Course Outcomes			
Students will	be able to:			1
C207.1	Test the mechanical properties of material on Universal testing machine and also able to analyse test results.			
C207.2	Evaluate materials' hardness and also able to analyse effect of different processes on hardness.			
C207.3	Evaluate the toughness of	materials by izoc	l and charpy test.	5
C207.4	Identify the micro structure of different materials and also able to analyse the effect of heat treatment on the same.			4
C207.5	Evaluate the modulus rigid the material using Fatigue	lity through torsi test.	on test and able to analyse fatigue failure of	5

Course Name Machine Dra	e: Computer Aided wing-I Lab–KME353	C 208	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will	be able to:			

C208.1	Understand and analyse the different kinds of engineering drawing symbols as per BIS Codes with classification of Drawings: Machine drawings etc	4
C208.2	Analyse the limit, fits and tolerance system and its application in machine drawing	4
C208.3	Create the 3D models using the basic concept of 2D modelling	6
C208.4	Draw the assembly of machine with the help of different detailed drawing of machine components	6
C208.5	Create the cut section view of machine assembly using CAD software	6

Course Name	e: Mini Project–KME354	C 209	Course Year:	2019 - 20
Sr. No	Course Outcomes			
Students will	be able to:			·
C209.1	Apply Technical students to the industrial environment, which cannot be simulated in the classroom and hence creating competent professionals in the industry.			
C209.2	Understand possible opportunities to learn and sharpen the real time technical /managerial skills required at the job.			2
C209.3	Apply the current technological developments relevant to the subject area of training.			3
C209.4	Apply the experience gained from the 'Industrial Internship' in discussions held in the classrooms.			3
C209.5	Create conditions conducive to quest for knowledge and its applicability on the job.			6

Course Name 402	e: Mathematics IV - KAS	C 210	Course Year:	2019 - 20
Sr. No	Course Outcomes			
Students will	be able to:			

C210.1	Study the methods to solve Partial Differential Equations	1
C210.2	Apply the concept of method of separation of variables to solve wave , heat ,Laplace and transmission equations.	3
C210.3	Evaluate Moments, M,G.F Correlations, linear regression.	5
C210.4	Apply the concept of probability to solve discrete and continuous probability distributions.	3
C210.5	Apply the concept of sampling to study t-test, F-test and Chi-square test, One way Analysis of Variance (ANOVA)	3

Course Name Values & Pre KVF401	Course Name: Universal HumanC 211Course Year:Values & Professional Ethics -KVE401Course Year:		Course Year:	2019 - 20	
Sr. No		Сол	irse Outcomes		
Students will	be able to:				
C211.1	Compare between values and skills, understand the need and process of value education, explore the meaning of happiness and prosperity and apply a correct appraisal of the current scenario in the society 3				
C211.2	Compare between the Self and the Body, analyse the meaning of Harmony in the Self "the Co-existence of Self and Body"				
C211.3	Understand the value of harmonious relationship based on trust, respect and other naturally acceptable feelings in human-human relationships and evaluate their role in ensuring a harmonious society				
C211.4	Understand the harmony in nature and existence, and analyse their mutually fulfilling participation in the nature.			4	
C211.5	Decide and Apply the role	of holistic understa	anding of harmony on professional ethics.	3	

Course Name Thermodyna	e: Applied mics -KME401	C 212	Course Year:	2019 - 20
Sr. No		Course Outcomes		BL

Students will be able to:					
C212.1	Analyse the basic power cycles and performance of I.C engines.	4			
C212.2	Analyze the process of combustion of fuel and formation of flue gases.	4			
C212.3	Understand the working and performance of boiler, draught and condenser.	2			
C212.4	Analyse the design and working of nozzles and steam turbines.	4			
C212.5	Understand the principle, working & performance of gas turbines and jet propulsion.	2			

Course Name -KME402	ourse Name: Engineering MechanicsC 213Course Year:KME402Course Year:Course Year:		Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students will	be able to:				
C213.1	Apply the effect of applied, non-applied and frictional forces on rigid bodies/body.				
C213.2	Analysis the statically determinate truss/beams under various loading conditions.				
C213.3	Calculate centroid/moment of inertia of composite body.			5	
C213.4	Analysis of displacement, velocity, acceleration etc of rigid body under dynamic condition with or without consideration of applied forces.			4	
C213.5	Analysis of stresses and its beams and shafts.	effect on under app	lied load on one dimensional bodies,	4	

Course Name Process-KM	e: Manufacturing E403	C 214	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:				
C214.1	Analyze the various primary manufacturing processes.	4		
C214.2	Analyze the phenomenon of metal cutting process	4		
C214.3	Analyze grinding and different types of super finishing operations	4		
C214.4	Apply the knowledge of various welding processes and their thermodynamic and metallurgical aspects.	3		
C214.5	Understand the concepts of non-conventional machining processes.	2		

Course Name KNC402	ne: Python Programming – C 215 Course Year:		Course Year:	2019 - 20
Sr. No		Course Outcomes		BL
Students will	be able to:			
C215.1				
C215.2				
C215.3				
C215.4				
C215.5				

Course Name Thermodyna	e: Applied mics Lab –KME451	C 216	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:				
C216.1	Understand the construction and working of fire tube and water tube boilers, their parts, differences, mountings and accessories.	2		
C216.2	Understand the construction and working of two-stroke and four-stroke petrol and diesel engines, their parts, working strokes and applications.	2		
C216.3	Understand the construction and working of steam engine, its components and the modified Rankine cycle.	2		
C216.4	Understand the construction and working of the steam turbines, its types, differences between impulse & reaction turbine and the compounding od impulse turbines.	2		
C216.5	Understand the construction and working of gas turbine and its types, working and process of Brayton's cycle.	2		

Course Name Lab–KME45	e: Manufacturing Process 2	C 217	Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students will	be able to:				
C217.1	Apply the casting process and remember various elements of gating system.				
C217.2	Apply different operations of lathe machine.				
C217.3	Apply different operations of milling machine.				
C217.4	Apply different operations of shaper machine.			3	
C217.5	Apply the concept of weldi	ng operations in welding shop	•	3	

Course Nan Machine Di	ne: Computer Aided rawing-II Lab–KME453	C 218	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:				
C218.1	Understand the different types of Engineering Drawing and BIS Codes	2		
C218.2	Remember the interchangeability system and its requirement in machine drawing	1		
C218.3	Able to draft the 3D/2D machine and allied component	2		
C218.4	Create the various machine components using machine drawing concepts	6		
C218.5	Remember the sketching part Modelling & Assemblies	1		

Course Name RAS 501	e: Managerial Economics-	C301	Course Year:	2019 - 20
Sr. No	Course Outcomes			
Students will	be able to:			<u>.</u>
C301.1	Understand basic concept of demand and its nature in economics.			2
C301.2	Understand the supply and its determining factors responsible for demand forecasting.			2
C301.3	Analyze the cost analysis.			4
C301.4	Analyze the concept of different market structure			4
C301.5	Analyze the concept of national income calculation	ure and characteristics of India	n economy, business cycle in	4

Course Name	e: Sociology - RAS 502	C 302	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:				
C302.1	Remembering the concept of industrial sociology.	1		
C302.2	Analyse the causes and consequences of rise and development of industry.	4		
C302.3	Evaluate the process of industrialization in India.	5		
C302.4	Discuss the contemporary issues in Industrial Sociology	2		
C302.5	Create model of industrialisation and environmental issues	6		

Course Name RME501	e: Machine Design I –	C 303	Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students will	Students will be able to:				
C303.1	Understand the design fundamentals and theories of failure				
C303.2	Understand the machine components under fluctuating loads and riveted joints.				
C303.3	Apply the bending and torsion theory on the shaft subjected to static and fluctuating used in various machines.			3	
C303.4	Analyze the mechanical springs used in various machines			4	
C303.5	Design the keys and coupli	ng and power screws used in v	various machines.	6	

Course Name -RME502	e: Heat & Mass Transfer	C 304	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:				
C304.1	Analyze the basic laws and mechanism of different mode of heat transfer and differential governing equations for conduction.	4		
C304.2	Evaluate amount of heat transfer through Fins and understand the transient heat conduction.	5		
C304.3	Analyze heat transfer through convection for different type of surface and also understand the difference between natural and forced convection.	4		
C304.4	Analyze the basic laws and principles of radiation and implement them for the evaluation of equations and problems of heat transfer through radiations.	4		
C304.5	Summarize heat exchanger phenomenon of parallel and counter flow and also remember the phenomenon of condensation, boiling and fundamentals of mass transfer.	5		

Course Name: Mfg. Sc. & Tech. II – RME503 C 305		Course Year:	2019 - 20		
Sr. No	Course Outcomes				
Students will	be able to:				
C305.1	Analyse the basic concepts of theory of metal cutting				
C305.2	Understand the construction & operations performed on various machine tools			2	
C305.3	Understand the principle of grinding and different types of super finishing operations			2	
C305.4	Analyze different welding and allied processes with their thermodynamic and metallurgical aspects			4	
C305.5	Understand the concepts of	f unconventional machining an	d welding processes	2	

Course Name Compressors	e: IC Engines & –RME051	C 306	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:				
C306.1	Understand the basic concept of IC Engine and air standard cycles.	2		
C306.2	Analyze combustion phenomena, carburetion system and concepts of ignition for S.I engine.	4		
C306.3	Analyze the combustion phenomena, fuel injection for C.I engine and emission.	4		
C306.4	Analyze the cooling, lubrication systems and fuels of IC Engines.	4		
C306.5	Understand the working of reciprocating and rotary type of compressors.	2		

Course Name Microprocess	e: Mechatronics & sor –RME052	C 307	Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students will	be able to:				
C307.1	Understanding the basics concepts of mechatronics and the mechanical elements used in mechatronics system.				
C307.2	Knowledge of the various electronic and computing elements used in mechatronics.				
C307.3	Understanding the system modelling and analysis and the use of different types of actuators			2	
C307.4	Knowledge of the various types of actuators and the stages in the design of mechatronics system.			1	
C307.5	Knowledge of the various	applications of Mecha	atronics	1	

Course Name Lab I–RME5	e: Design & Simulation 51	C 308	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL

Students will be able to:			
C308.1	Understand the design of cotter & knuckle joint	2	
C308.2	Analyze rivet joint for boilers.	4	
C308.3	Evaluate dia of the shaft for combined loading for given application.	5	
C308.4	Understand and design coupling & keys for given application.	2	
C308.5	Apply theory of strength of material in design sprigs & screw jack for given application	3	

Course Name Lab –RME55	ne: Heat & Mass Transfer 552 C 309 Course Year:		2019 - 20		
Sr. No	Course Outcomes				
Students will	Students will be able to:				
C309.1	Apply the basic principle of conduction and convection on various elements and also evaluate the amount of heat flow through rod in conduction and convection.			3	
C309.2	Summarize the comparative study about the quantity of heat transfer between fluids and solid boundaries.			5	
C309.3	Analyze the principle of combined heat transfer and evaluate the amount of heat exchanged between fluids flowing within heat exchangers.			4	
C309.4	Built the ability to carry ou understand its application.	t simple experimental work in	irradiative heat and to	2	

Course Name Lab –RME55	e: Mfg. Sc. & Tech. II 53	C 310	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will be able to:				

C310.1	Underastand the different operations on lathe machine.	
C310.2	Apply the work on milling machine.	3
C310.3	Understand the work on shaper machine.	
C310.4	Analyse work on various welding techniques.	4

Course Name	ne: Seminar –RME559 C 311 Course Year:		2019 - 20		
Sr. No	Course Outcomes				
Students will	Students will be able to:				
C311.1	Discuss ideas with presentation skills and enhancement of personality traits.			2	
C311.2	Application of recent trends in technological developments taking place in the field of their own interest.				
C311.3	Analyse and identify role of mechanical engineering in multidisciplinary technologies.			4	
C311.4	Evaluation of new ideas an	d inventions		5	

Course Name: Industrial Management - RAS 601		C 312	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will be able to:				
C312.1	Apply the fundamentals of industrial management, business enterprises and production system			3
C312.2	Analyze the principles of management and focuses on matching the needs of the business with the needs and development of employees			4

C312.3	Analyze the concepts of inventory models and determine the best method of performing each operation and to eliminate wastage	4
C312.4	Evaluate the concepts of quality, quality control tools and total quality management	5
C312.5	Create the scope, cost, timing and quality of the project.	6

Course Name 601	e: Cyber SecurityRUC	C 313	Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students will	be able to:				
C313.1	Learn about information systems, its types, threats, security issues related to it and also about cyber security and risk associated to it .				
C313.2	Learn about Application security, Data security and types of security Threats in network.			1	
C313.3	Understand the importance of secure information system and risk management issues indifferent applications.			2	
C313.4	Design security procedures, policies and also implement cryptography in their live projects and also learn about modern copyright, patent law, skills of ethics, cyber crime and IT ACT.			6	
C313.5	Understand modern copyri that they can protect their i	ght, patent law, skills of ethics, nventions by making use of the	cyber crime and IT ACT so ese Laws.	2	

Course Name RME601	e: Fluid Machinery – C 314 Course Year:		2019 - 20		
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C314.1	Analyze the concept of momentum equation and working principle of impulse turbine.			4	
C314.2	Analyze the construction and working principle of reaction hydraulic turbines.			4	

C314.3	Apply the concept of working of centrifugal pump to determine the work done.	3
C314.4	Analyze the working principle, and performance characteristics of reciprocating pump.	4
C314.5	Analyze the working principle of hydraulic machines such as hydraulic ram, lift, press, torque converter	4

Course Name RME602	e: Theory of Machine –	C 315	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C315.1	Analyze velocity and acceleration of different points in a mechanism.				
C315.2	Understand the concept of cams and followers & apply parameters required in gear design.			2	
C315.3	Calculate Static force and dynamic forces during analysis of mechanisms and to calculate fluctuation of energy in flywheels.			5	
C315.4	Analyze balancing masses of the rotating and reciprocating systems and to calculate equilibrium speed of different types of the governors.			4	
C315.5	Understand concept of bral	kes and dynamometers.		2	

Course Name RME603	e: Machine Design II –	C 316	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will be able to:				
C316.1	Understand the basic design of spur gear and helical gears.			2
C316.2	Understand the basic design of Bevel gear and Worm Derive.		2	

C316.3	Apply the basic design on different type of sliding contact bearing.	3
C316.4	Apply the basic design of different type of Rolling contact bearing.	3
C316.5	Apply the basic design and analyse I.C. engine parts.	3

Course Name	e: RAC-RME061	C 317	Course Year:	2019 - 20
Sr. No			BL	
Students will	be able to:			
C317.1	Analyze the performance of air refrigeration system.			4
C317.2	Analyze the performance of vapour compression refrigeration systems.			4
C317.3	Analyze the working of vapour absorption refrigeration system and understand the classification and properties of refrigerants.			4
C317.4	Analyze the different psychrometric processes and cooling load.			4
C317.5	Understand the working of	various refrigeration and air-co	onditioning equipments.	2

Course Name	e: PPC -RME062	C 318	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C318.1	Understand the concept of production system and preplanning of production planning and control.			2	
C318.2	Analyse the various characteristics and methods of production planning.			4	

C318.3	Analyse the various characteristics of production control.	4
C318.4	Analyse the concepts of evaluation and analysis (CPM/PERT) techniques.	4
C318.5	Understand the concepts of material planning and control.	2

Course Name RME651	e: Fluid Macinery Lab –	C 319	Course Year:	2019 - 20
Sr. No		<b>Course Outcomes</b>		BL
Students will	be able to:			
C319.1	Analyze the Impulse momentum equation and working principle of Pelton Wheel			
C319.2	Apply the working principle of Francis and Kaplan Turbine and determine their performances			3
C319.3	Analyze the working principle and performance of centrifugal pump.			4
C319.4	Apply the working principle of reciprocating pump and calculate its power output and efficiency.			3
C319.5	Analyze the working prince of hydraulic ram	iple of hydraulic ram, lift, press	and calculate the efficiency	4

Course Name	e: TOM Lab –RME652	C 320	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will be able to:				
C320.1	Demonstrate various mechanisms, their inversions and brake and clutches in automobile			4
C320.2	Apply cam-follower mecha	anism to get desired motion of t	follower.	3

C320.3	Apply the concepts of gears and gear train to get desired velocity ratio for power transmission.	3
C320.4	Apply the concept of governors to control the fuel supply in engine.	3
C320.5	Determine the balancing load in static and dynamic balancing problem	4

Course Name Lab II –RMF	e: Design & Simulation 2653	C 321	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C321.1	Understand the basic programming skill in c or c++.			2	
C321.2	Create computer program for basic design problems.			6	
C321.3	Develop computer program for designing of gears.			6	
C321.4	Develop computer program for designing of journal bearing and selection of ball bearing.			6	
C321.5	Apply engineering know design of asubsystem/sy	edge to solve a real life prot /stem.	plem for the complete	3	

Course Name	e: RACLab–RME654	C 322	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C322.1	Understand the working of refrigeration and air-conditioning system.			2	
C322.2	Analyze the performance parameters of refrigeration and air-conditioning systems.			4	

C322.3	Analyze the performance parameters of a two-stage air compressor.	4
C322.4	Analyze the performance parameters of an air-washer.	4

Course Name RME075	e: Operations Research-	C 401	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will	be able to:			
C401.1	Develop operation research models and apply LPP Method			6
C401.2	Apply the mathematical tools involved in transportation and assignment problems.			3
C401.3	Evaluate the optimal strategy for games and optimal sequence for machines.			5
C401.4	Solve inventory control and simulation of problems for practical purposes.			5
C401.5	Analysis of Queuing and p	roject management problems.		4

Course Name	e: CAD/CAM- RME701	C 402	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C402.1	Apply basic structure of Computer graphics, geometrical transformations and geometric modelling.			3	
C402.2	Apply graphic standards & data storage and finite element modelling.			3	
C402.3	Apply fundamental and adprogramming and machining	Apply fundamental and advanced features of CNC machines & basic concepts of CNC programming and machining.			

C402.4	Understand the fundamentals of robotics and Quality function deployment.	2
C402.5	Understand the Group Technology, Rapid prototyping and CIM concepts.	2

Course Name RME702	e: Automobile Engg–	C 403	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will	be able to:			
C403.1	Apply the law of mechanics to perform basic calculations for rolling, air, gradient resistance, Gear ratio determination and have understanding about gear box.			3
C403.2	Understand different types of Transmission System and steering geometry.			2
C403.3	Apply the law of physics to calculate weight transfer during braking and have knowledge of different types of loads acting on the chassis and suspension system.			3
C403.4	Analyze different types of electrical system and fuel supply system.			4
C403.5	Study the emission norms a emissions, contamination i	apply worldwide, EVs and tech n medicinal plant materials.	nniques to control the	1

Course Name	e: PPE- RME071	C 404	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C404.1	Analyse fuels, load estimation and power plant economics.			4	
C404.2	Analyse the working of different component of steam power plant.			4	
C404.3	Analyse the working of dif	ferent component of diesel and	gas turbine power plant.	4	

C404.4	Apply the working of different component of nuclear and hydro power plant.	3
C404.5	Understand different electrical system, instrument used in power plant and pollution during power generation	2

Course Nam	e: SCM-RME072	C 405	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will	be able to:			
C405.1	Understand the supply chain management their performance, competitive and supply chain strategies, and understanding strategic fit and scope of strategic fit.			2
C405.2	Understand the supply chain drivers and metrics and study the case study of Japan 7- Eleven Company.			2
C405.3	Apply the understanding of the planning demand and supply in a supply chain.			3
C405.4	Understand the network design in the supply chain.			2
C405.5	Understand the factors influence measurement.	uencing logistics and decisions	s, benchmarking and	2

Course Name RME751	e: CAD/CAM Lab –	C 406	Course Year:	2019 - 20
Sr. No	Course Outcomes			BL
Students will	Students will be able to:			
C406.1	Create complex geometries of machine components in sketcher mode.			6
C406.2	Create the programs to generate analytical and synthetic curves used in engineering practice.			6
C406.3	Create freeform shapes in p	Create freeform shapes in part mode to visualize components.		

C406.4	Create complex engineering assemblies using appropriate assembly constraints.	6
C406.5	Create a part program for turning and milling of given components as per drawing.	6

Course Name Automobile I	e: I.C Engine & Engg. Lab –RME752	C 407	Course Year:	2019 - 20	
Sr. No	Course Outcomes				
Students will	Students will be able to:				
C407.1	Conduct experiments to understand the configuration of different types of gear box. 2				
C407.2	Analyze the performance of four strokes CI and SI Engines.			4	
C407.3	Study and analyze the exhaust gases on gas analyzer experiment setup.			4	
C407.4	Conduct experiments to understand the working of different subsystems (i.e. braking system, ignition, differential mechanism and steering mechanism) of an automobile.			2	
C407.5	Conduct experiments to un automobile.	derstand the different types of	f injection systems used in	2	

Course Name	e: Ind Trg–RME753	C 408	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C408.1	Understand working environment of a company			2	
C408.2	Apply knowledge and skill in industry problem which have been studied during program			3	
C408.3	Analyze day to day real tin	ne problem of an industry		4	

C408.4	Evaluate themselves and put effort to fulfill the gap between industry and academia	5
C408.5	Create their project collaboration with indutry.	6

Course Name	e: Project –RME754	C 409	Course Year:	2019 - 20		
Sr. No	Course Outcomes			BL		
Students will	Students will be able to:					
C409.1	Understand methods and materials to carry out experiments			2		
C409.2	Apply the procedures with a concern for society, environment and ethics			3		
C409.3	Analyze and discuss the results to draw valid conclusions			4		
C409.4	Create a report as per recommended format and defend the work			6		
C409.5	Evaluate the possibility of publishing papers in peer reviewed journal/conference proceedings			5		

Course Name	e: RER– ROE086	C 410	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C410.1	Understand the significance of various non-conventional energy resources, their availability and Limitations			2	
C410.2	Design and analysis of solar thermal collectors to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, manufacturability, and sustainability			6	
C410.3	Applying the modern engineering techniques such Magneto-hydrodynamics (MHD) generator and fuel cell for non conventional energy resources			3	

C410.4	Evaluating the impact of wind energy resources and plants as an engineering solution in societal and environmental context in order to have sustainable development	
C410.5	Understand the basic design of Ocean thermal energy plant and wave energy plant to apply the modern engineering practices.	3

Course Name: NDT- RME080		C 411	Course Year:	2019 - 20		
Sr. No	Course Outcomes			BL		
Students will	Students will be able to:					
C411.1	Understand the concept of destructive and Non-destructive testing methods.			2		
C411.2	Apply the principle of die penetrates test and magnetic particle test to inspect material defects.			3		
C411.3	Apply radiographic techniques for testing.			3		
C411.4	Understand the working principle of Ultrasonic testing and its application in medical and engineering areas.			2		
C411.5	Apply the principle of eddy current testing for inspection.			3		

Course Name	e: TQM– RME085	C 412	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C412.1	Understand the concept of quality and total quality management.			2	
C412.2	Understand and evaluate the role of organization structure towards quality.			2	
C412.3	Analyze and apply the statistical quality control techniques.			4	

C412.4	Analyze defect along with diagnosis and design of system for reliability and maintainability.	
C412.5	Understand and apply different ISO systems and optimization techniques.	3

Course Name: Seminar- RME851		C 413	Cour	se Year:	2019 - 20	
Sr. No	Course Outcomes				BL	
Students will	Students will be able to:					
C413.1	Deliver the ideas towards industrial exposure and implement that to enhance their personality.			3		
C413.2	Analyze and enhance the knowledge with the recent trends in technological developments taking place in the field of their own interest.			4		
C413.3	Create own models based on their industrial knowledge and get familiar with multidisciplinary technologies.			6		
C413.4	Analyze about the exposure in the topics relates to beyond curriculum and also remember professional ethics.			ulum and also	4	

Course Name: Project –RME852		C 414	Course Year:	2019 - 20	
Sr. No	Course Outcomes			BL	
Students will	Students will be able to:				
C414.1	Understand methods and materials and their selection to carry out experiments.			2	
C414.2	Apply the procedures with a concern for society, environment and ethics.			3	
C414.3	Analyze and discuss the results to draw valid conclusions.			4	
C414.4	Create a report as per recommended format and defend the work.			6	

		-
C414.5	Evaluate the possibility of publishing papers in peer reviewed journal/conference proceedings.	5