

THIRD YEAR

Machine Design I (RME501): C301

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C301.1	Recall the basic concepts of Engineering Mechanics, Engineering Graphics and Solid Mechanics to understand the subject.	K1, K2
C301.2	Classify and explain the basic function of various machine elements such as rivets, shafts, mechanical springs, keys, couplings & power screw.	K2
C301.3	Apply the principles of solid mechanics to understand the design of machine elements subjected to different types of loads.	K2, K3
C301.4	Analyze and examine numerical values of the forces, bending moments and twisting moments subjected to the machine element to be designed.	K4
C301.5	Design and evaluate the safety of designed machine elements like rivets, shafts, helical springs, couplings & screw jack etc.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	3	2	2	2	2							2
C301.2	3	2	2	2	2							2
C301.3	3	2	3	2	2							2
C301.4	3	3	3	3	3							2
C301.5	3	2	3	3	3							2
C301	3	2.2	2.6	2.4	2.4							2

CO	PSO1	PSO2	PSO3	PSO4
C301.1	3			
C301.2	3			
C301.3	3			
C301.4	3			
C301.5	3			
C301	3			

Sociology (RAS502): C302

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C302.1	Understand the Nature and Scope of Industrial sociology and Psychology with Characteristics of the factory system and Work Environment. Understand organisational structure and patterns of organisational behaviour.	K1
C302.2	An understanding of the need for high ethical standards in the practice of engineering, including the responsibilities of the engineering profession towards people and the environment.	K2
C302.3	Develop ability to understand various Industrial Policy Resolutions and their appropriate application in the Industry.	K1, K3

C302.4	The ability to communicate effectively with the engineering community and with society at large handling contemporary issues, grievance and Industrial disputes.	K4, K5
C302.5	Develop an understanding of various models of Industrialization and various cultural issues and the knowledge of consumer society and Sociological concerns.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1		3	2	3	2	3	3	2				3
C302.2		3	2	2	2	3	3	2				2
C302.3		3	2	1	2	3	3	2				2
C302.4		3	2	3	2	3	3	3				1
C302.5		3	3	2	2	3	3	2				3
C302		3	2.2	2.2	2	3	3	2.2				2.2

CO	PSO1	PSO2	PSO3	PSO4
C302.1				3
C302.2				3
C302.3				3
C302.4				3
C302.5				3
C302				3

Manufacturing Science & Technology II (RME503): C303

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C303.1	Recalling the basics of workshop processes, thermal science and real life exposure of all the processes that he/she might have seen in house/factory (turning, drilling, welding, forging, casting etc).	K1
C303.2	Understanding the concepts of metal cutting, grinding, finishing processes, limit, fits, tolerances, metal joining processes, types of unconventional machining processes etc.	K2
C303.3	Implementing the concepts of manufacturing science in creating work pieces by metal cutting, forging, casting, joining , forming etc.	K3
C303.4	Solving the various numerical problems of the related topics.	K4
C303.5	Creating real life projects like automobile bodies which helps students to implement almost every concept of manufacturing processes that they have acquired in lectures. Self-evaluation to be done as per the problems in real world against the knowledge and techniques gained in the class.	K5, K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C303.1	3									2		2
C303.2	3	2	2		2					2		2
C303.3	3	2	3		2				3	2		2
C303.4	2	3	3	3					3	2		2

C303.5	2	2	2		2	3	3	3	3	3	3	2
C303	3	2	2	3	2	3	3	3	3	2	3	2

CO	PSO1	PSO2	PSO3	PSO4
C303.1	2		3	
C303.2	2		3	
C303.3	2		3	
C303.4	2		3	
C303.5		2	3	2
C303	2	2	3	2

Heat & Mass Transfer (RME502): C304

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C304.1	Recalling the basic modes of heat transfer, basics of fluid mechanics and their mathematical expressions.	K1
C304.2	Understanding the concepts of heat transfer through conductive materials of various shape and size, understanding the concept of heat transfer through fins under different considerations of parameters. Understanding the concept of transient heat transfer. Understanding the concept of heat exchangers and application. Understanding the concept of diffusion. Understanding the concept of convection and radiation.	K2
C304.3	Implementing the concepts of heat transfer in physical world like power plant(boiler, condenser, heat exchangers. Implementing the concepts of heat transfer in building air conditioning etc.	K3
C304.4	Solving the various numerical problems of the related topics.	K4
C304.5	Creating real life projects of heat exchangers, fluid dynamics, heat load estimation of building airconditioning and other thermal related equipment. Self-evaluation to be done as per the problems in real world against the knowledge and techniques gained in the class.	K5,K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304.1	3	2	2	2								
C304.2	3	2	2	2								
C304.3	3	3	3	2	3				3		2	
C304.4	3	3	3	3	3				3	2	2	
C304.5	2	3	3	3	3				3	2	2	
C304	3	3	3	2	3				3	2	2	

CO	PSO1	PSO2	PSO3	PSO4
C304.1		3		
C304.2		3	2	
C304.3		3		
C304.4		3	2	
C304.5		3		

C304		3	2	
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I.C. Engines & Compressors (RME051): C305
Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C305.1	Define & Explain the basic terminology used in IC Engine & Compressor.	K1, K2
C305.2	Understand the classification & Describe the working of IC Engine & Compressors.	K2
C305.3	Apply the Laws of thermodynamics to combustion process, fuel injection & injection system, exhaust system, cooling and lubrication system of IC Engine & Compressors.	K3
C305.4	Design & Analyse the combustion chamber of IC Engine & Compressors.	K4
C305.5	Testing & Evaluate the performance of IC Engine & Compressors.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305.1	3											3
C305.2	3											3
C305.3	3	2	2									3
C305.4	3	3	3	3	2							3
C305.5	3	3	3	3	3	3	3					3
C305	3	3	3	3	3	3	3					3

CO	PSO1	PSO2	PSO3	PSO4
C305.1		3		
C305.2	2	3		
C305.3	3	3		
C305.4	3	3	3	
C305.5		3	2	
C305	3	3	3	

Managerial Economics (RAS501): C306
Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C306.1	The course helps the students to understand how economic principles can be applied to a company's decision making in terms of economic viability. It helps in understanding the application of economics principles like Demand and its elasticity in the field of Engineering.	K1
C306.2	It develops the understanding of the concept of Supply, Elasticity of Supply and demand forecasting which contribute in the decisionmaking of introducing any product or services in the market.	K2
C306.3	It enables the students to understand about industrial production, factors of production, economies and diseconomies for production scale. Understand Laws of Production and various elements of cost involve in industry.	K3

C306.4	It enhances the understanding about market, various types of market, various pricing policies, market structure and determines price and output in these markets and help in optimizing the profit.	K4,K5
C306.5	It develops the understanding of Indian Market and Economy as a whole to take various macro level industry decisions	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C306.1		3	2	3	2	3	3	2				3
C306.2		3	2	2	2	3	3	2				2
C306.3		3	2	1	2	3	3	2				2
C306.4		3	2	3	2	3	3	3	2	3	3	1
C306.5		2	2	3	3	3	3	2				2
C306		2.8	2	2.4	2.2	3	3	2.2	2	3	3	2

CO	PSO1	PSO2	PSO3	PSO4
C306.1				3
C306.2				3
C306.3				3
C306.4				3
C306.5				3
C306				3

Design & Simulation Lab I (RME551): C307

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C307.1	Recall the basic concepts of Engg. Mechanics and Solid Mechanics and remember basic terminology of different machine elements.	K1
C307.2	Classify the different types of joints and fasteners and learn their applications.	K2
C307.3	Apply the basic principles of Solid Mechanics to learn the design procedure of different machine elements.	K3
C307.4	Check the safety of designed machine elements like rivets, shafts, helical springs, couplings & screw jack etc.	K4

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307.1	3	2	2	2								2
C307.2	3	2	2									2
C307.3	3	3	3	3	2							2
C307.4	3	2	3	2	3							2
C307	3	2.25	2.5	1.75	1.25							2

CO	PSO1	PSO2	PSO3	PSO4
C307.1	3			
C307.2	3			

C307.3	3		
C307.4	3		
C307	3		

Seminar I (RME559): C308

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C308.1	Identify, understand and discuss current, realworld technological issues.	K1,K2
C308.2	To explore new directions of various cutting edge technologies and their societal and environmental impact.	K4,K5
C308.3	To develop self-management& reflection skills.	K2
C308.4	To improve oral and written communication skills.	K3,K2

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C308.1	3	3	3	2	3	3		3	2			3
C308.2	3	3	3	2	3	3	3					3
C308.3								3	2			
C308.4										3		
C308	3	3	3	2	3	3	3	3	2	3	3	3

CO	PSO1	PSO2	PSO3	PSO4
C308.1	3	3	3	
C308.2	3	3	3	
C308.3				3
C308.4				3
C308	3	3	3	3

Manufacturing Technology II Lab (RME553): C309

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C309.1	Students will perform experiments on Lathe Machine and its wide other Applications.	K1 & K2
C309.2	Students will work on Shaper and Slotter machines and will learn its working principle.	K2
C309.3	Students will work on Drilling Machine and learn the Drilling Jig.	K3
C309.4	Students to work on Milling Machine. Will see different milling Cutters and Will do indexing on Indexing Plate.	K4
C309.5	Students shall make the job on Surface Grinding machines.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C309.1	3	2	2									3
C309.2	3	2	2									3

C309.3	3	3	3	3								3
C309.4	3	3	3	3	3							3
C309.5	3	3	3	3	3							3
C309	3	3	3	3	3							3

CO	PSO1	PSO2	PSO3	PSO4
C309.1	2	3	3	
C309.2	2	3	3	
C309.3	2	2	3	
C309.4	2	3	3	
C309.5	2	3	3	
C309	2	3	3	

Heat & Mass Transfer Lab (RME552): C310

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C310.1	Describe and define all the experiments regarding conduction, convection, heat exchangers and radiation.	K1
C310.2	Discuss and explain all the experiments of conduction, convection, heat exchangers & radiation.	K2
C310.3	Apply the theories and produce the lab work and its results	K3
C310.4	Analyze and compute the desired results of all the experiments.	K4
C310.5	Synthesize all the experiments graphically and virtually.	K5
C310.6	Argue, conclude and evaluate the results with the graphs or virtually with the theories studied.	K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C310.1	3	2	2	2					2	2		2
C310.2	2	2	2	2					2	2		2
C310.3	2	2	2	2					2	2		2
C310.4	2	3	3	3					2	2		2
C310.5	2	2	3	3	3				2	2		2
C310.6	2	2	2	2	2				2	2		2
C310	2	2	2	2	3				2	2		2

CO	PSO1	PSO2	PSO3	PSO4
C310.1		3		
C310.2		3	2	
C310.3		3		
C310.4		3	2	
C310.5		3		
C310.6				
C310		3	2	

Mechatronics and Microprocessor (RME052): C311**Year of Study: 2019-20**

Code	Course Outcome	Bloom Taxonomy Level
C311.1	Define and explain the mechatronics systems and overview of signal conditioning, sensors, mechanical, computing and electrical elements etc.	K1, K2
C311.2	Apply the knowledge of electronics, electrical and mechanical systems to construct a synergic system of mechatronics.	K3
C311.3	Analyze the active and passive components of system and relates various signal conditioning units, amplifiers, flipflops, electrical drives etc. and identify their influence in respective field and applications.	K4
C311.4	Explain and evaluate the integrated parts of mechatronics as FMS, JIT, CAD, CIM, ICs, motors etc. and relates them with applications and challenges.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	3				2				2			
C311.2	3								3			
C311.3	3	3	2		3				3			
C311.4	1				2						2	
C311.5	3	3	2		2				3		2	
C311	3	3	2		2				3		2	

CO	PSO1	PSO2	PSO3	PSO4
C311.1	3			
C311.2	2			
C311.3				
C311.4				3
C311	3			3

Machine Design II (RME603): C312**Year of Study: 2019-20**

Code	Course Outcome	Bloom Taxonomy Level
C312.1	Understand and learn the basic terminology of machine elements such as gears, bearings and IC engine parts.	K1, K2
C312.2	Classify among different types of gears, bearings and IC engine parts.	K2
C312.3	Apply and analyze the basic principles to carry out the force analysis of different machine elements such as gears, bearings and IC engine parts.	K3, K4
C312.4	Understand the procedure to select the suitable bearing from manufacturer catalogue.	K5
C312.5	Design and evaluate the safety of designed machine elements such as gears, bearings and IC engine parts etc.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
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C312.1	3	2	2	2	2							2
C312.2	3	2	2	2	2							2
C312.3	3	3	3	3	3							2
C312.4	3	2	3	2	2							2
C312.5	3	3	3	3	3							2
C312	3	2.4	2.6	2.4	2.4							2

CO	PSO1	PSO2	PSO3	PSO4
C312.1	3			
C312.2	3			
C312.3	3			
C312.4	3			
C312.5	3			
C312	3			

Theory of Machines (RME602): C313

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C313.1	Students should be able to define machine, mechanism, inversions of plane mechanism , governor etc.	K1
C313.2	Students should be able to explain velocity, acceleration and force analysis of mechanism.	K2, K4
C313.3	Students should be able to apply fundamental concepts of theory of machines solve problems. (Ex Balancing).	K3
C313.4	Students should be able to distinguish machines application. (Ex Flywheel and governor).	K4
C313.5	Students should be able to design and evaluate cam, gear, break etc.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313.1	3	3	2			2						
C313.2	3	3	2	3	2	3						
C313.3	3	2	3			3	3					2
C313.4	3	2	1	3								2
C313.5	3	2	2		2	2	2					2
C313	3	2	2	3	2	3	3					2

CO	PSO1	PSO2	PSO3	PSO4
C313.1	3			
C313.2	3			2
C313.3	3		2	
C313.4	3			
C313.5	3		2	
C313	3		2	2

Refrigeration & Air Conditioning (RME061): C314
Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C314.1	Recalling the basics of thermal sciences, basics of fluid mechanics and their mathematical expressions.	K1
C314.2	Understanding the concepts of cooling by vapour compression and absorption techniques. Having an understanding of aircraft air conditioning systems. Understanding the concepts of psychrometry of the air and also its applications in air conditioning system design,	K2
C314.3	Implementing the concepts of basic thermal sciences and refrigeration and air conditioning techniques to physically / practically oriented problems and issues.	K3
C314.4	Solving the various numerical problems of the related topics.	K4
C314.5	Creating real life projects of heat load estimation of building air conditioning and design of HVAC equipment .Self-evaluation to be done as per the problems in real world against the knowledge and techniques gained in the class.	K5,K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314.1	2	3	3	2		2	2	2	2			2
C314.2	2	3	2	2	2				2			2
C314.3	2	3	2	2	2				3			2
C314.4	2	3		2	2				2			2
C314.5		2	2	2	2	2		2	2			2
C314	2	3	2	2	2	2	2	2	2			2

CO	PSO1	PSO2	PSO3	PSO4
C314.1	2	3		
C314.2		3	2	
C314.3		3		
C314.4		3		
C314.5		3		2
C314	2	3	2	2

Cyber Security (RUC601): C315
Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C315.1	To understand information systems, its security, need and security analysis on Risk Management.	K1, K2
C315.2	Develop Data Security Considerations with the help of Archival Storage, Disposal of Data and Security Technology i.e. Firewall and VPNs.	K3
C315.3	Understand Secure Information system with the help of application security, and information Security Governance in real world scenario.	K2
C315.4	Learn about Security policies WWW, Email, Database, corporate.	K2

C315.5	Understand Information Security Standards –ISO, IT Act, copyright Act and patent law to make our system secure.	K2
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CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C315.1	3	3	3	3								3
C315.2	2	3	3	2	3							2
C315.3	1	3	1	3	3							3
C315.4	3	3	2		2						3	3
C315.5	3	3	2		3						3	3
C315	2	3	2	2	2						2	3

CO	PSO1	PSO2	PSO3	PSO4
C315.1				3
C315.2				3
C315.3				3
C315.4				3
C315.5				3
C315				3

Fluid Machinery (RME601): C316

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C316.1	Recalling the Euler equation of motion and calculation of force due to impact of jet on a fixed and moving surface (flat & curve),	K1
C316.2	Understanding the classification of turbines, Constructional details, Velocity triangles and Performance characteristics of impulse turbine, reaction turbine, centrifugal pump and positive displacement pump.	K2
C316.3	Implementing the concepts of momentum and moment of momentum equation to flow through hydraulic machinery, the concepts of discharge and efficiency in physical world like hydel power plant etc.	K3
C316.4	Analysing the Principles of similarity, Unit and specific speed for different types of turbines. Knowing the parametric analysis parameter for selection of water turbines. Solving the various numerical problems of the related topics.	K4
C316.5	Creating real life projects of Hydraulic machinery, fluid dynamics, Power estimation of different types of Turbine and pumps. Efficiency evaluation to be done as per the problems in real world against the other types of hydraulic machine.	K5, K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C316.1	3	1	1	1								
C316.2	3	1	2	1								
C316.3	3	3	3	2	3				3		2	
C316.4	3	3	3	3	3				3	2	2	
C316.5	2	3	3	3	3				3	2	2	

C316	3	2	2	2	3				3	2	2	
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CO	PSO1	PSO2	PSO3	PSO4
C316.1	2			
C316.2	2			
C316.3	2			
C316.4	2			
C316.5	2			
C316	2			

Industrial Management (RAS601): C317

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C317.1	The course helps the students in understanding fundamental tools and techniques of Industrial Engineering. It inculcates better understanding regarding application of the industrial management in the field of engineering.	K2
C317.2	It helps the students to understand inter relatedness of various production activities and their management in an industry. It develops the skill to apply management tools for improved productivity in an industry.	K2,K3
C317.3	It helps the students to understand inventory related basic concepts and models for better productivity and results in an organization.	K4
C317.4	It develops the ability to design and develop products and services in an efficient manner. It helps in understanding the product quality, its quality management. It develops the ability to manage the job floor of an industry or a research organization efficiently and effectively by the optimized utilization of the resources for the maximum output.	K3,K4
C317.5	It develops the ability to manage projects in an efficient manner by applying the concept of project network analysis and resource levelling.	K3,K4

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C317.1		3	2	3	2	3	3	2				3
C317.2		3	2	2	2	3	3	2				2
C317.3		3	2	1	2	3	3	2				2
C317.4		3	2	3	2	3	3	3	2	3	3	1
C317.5		3	2	2	1	3	3	2	2	2	2	2
C317		3	2	2	2	3	3	2	2	2	2	2

CO	PSO1	PSO2	PSO3	PSO4
C317.1				3
C317.2				3
C317.3				3
C317.4				3

C317.5				3
C317				3

Design & Simulation Lab II (RME652): C318

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C318.1	Students learn and understand the basic concepts of computer language such as C and C++.	K1, K2
C318.2	Students are required to write computer program and validate it for the design of different machine elements such as gears, bearings and IC engine parts studied in theory class.	K3, K4
C318.3	Student will be able to solve real life problem for the complete design of a subsystem/system using either manual calculation with the help of design handbook or through computer program, if needed.	K5

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C318.1	2				3							2
C318.2	3	2	2		3							2
C318.3	3	2	3		2							3
C318	2.67	1.33	1.67		2.67							2.33

CO	PSO1	PSO2	PSO3	PSO4
C318.1				
C318.2	3			
C318.3	3			
C318	2			

Fluid Machinery Lab (RME651): C319

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C319.1	Describe and define the experiment based on Impact of jet for flat and curved types of Vanes regarding.	K1
C319.2	Discuss and explain the experiments based on Impulse Turbine, Reaction Turbine (like Pelton Wheel, Francis Turbine), Centrifugal Pump and Reciprocating Pump.	K2
C319.3	Apply the theories and produce the lab work and its results	K3
C319.4	Analyze and compute the desired results of all the experiments.	K4
C319.5	Synthesize all the experiments graphically.	K5
C319.6	Argue, conclude and evaluate the results with the graphs with the theories studied.	K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C319.1	3	2	2	2					2	2		2

C319.2	2	2	2	2					2	2		2
C319.3	2	2	2	2					2	2		2
C319.4	2	3	3	3					2	2		2
C319.5	2	2	3	3	3				2	2		2
C319.6	2	2	2	2	2				2	2		2
C319	2	2	2	2	3				2	2		2

CO	PSO1	PSO2	PSO3	PSO4
C319.1		3		
C319.2		3	2	
C319.3		3		
C319.4		3	2	
C319.5		3		
C319.6				
C319		3	2	

Theory of Machines Lab (RME653): C320

Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C320.1	Students should be able to define machine, mechanism, inversions of plane mechanism , governor etc.	K1
C320.2	Students should be able to explain different inversions of plane mechanisms, balancing, governor, gyroscope, whirling of shaft.	K2
C320.3	Students should be able to calculate whirling speed of shaft and show different graphical relations.	K3
C320.4	Students should be able to distinguish static and dynamic balancing, flywheel and governor, dead weight type and spring controlled governor.	K4
C320.5	Students should be able to compare theoretical and experimental results of different experimental set up.	K4

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C320.1	3	3	2			2						2
C320.2	3	3	2	3	2	3						2
C320.3	3	2	3			3	3					2
C320.4	3	2		3								2
C320.5	3	2	2		2	2	2					2
C320	3	2	2	3	2	3	3					2

CO	PSO1	PSO2	PSO3	PSO4
C320.1	3			
C320.2	3			2
C320.3	3		2	
C320.4	3			
C320.5	3		2	

C320	3		2	2
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Refrigeration & Air Conditioning Lab (RME654): C321 Year of Study: 2019-20

Code	Course Outcome	Bloom Taxonomy Level
C321.1	Describe and define all the experiments regarding refrigerator, air conditioner, air washer, cooling towers and their parts.	K1
C321.2	Discuss and explain all the experiments of refrigerator, air conditioner, air washer, cooling towers and their parts.	K2
C321.3	Apply the theories and produce the lab work and its results	K3
C321.4	Analyze and compute the desired results of all the experiments.	K4
C321.5	Synthesize all the experiments graphically and virtually.	K5
C321.6	Argue, conclude and evaluate the results with the graphs or virtually with the theories studied.	K6

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C321.1	3	2	2	2					2	2		2
C321.2	2	2	2	2					2	2		2
C321.3	2	2	2	2					2	2		2
C321.4	2	3	3	3					2	2		2
C321.5	2	2	3	3	3				2	2		2
C321.6	2	2	2	2	2				2	2		2
C 321	2	2	2	2	3				2	2		2

CO	PSO1	PSO2	PSO3	PSO4
C321.1		3		
C321.2		3	2	
C321.3		3		
C321.4		3	2	
C321.5		3		
C321.6				
C321		3	2	