



Sree Chitra Thirunal College of Engineering

Pappanamcode Thiruvananthapuram kerala -695018

principal@sctce.ac.in

Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
ME 2K20 A	1	HEAT & MASS TRANSFER	CO1	Apply principles of Heat and Mass Transfer to engineering problems.	Remembering(R)
			CO2	Analyse and obtain solutions to problems involving various modes of heat transfer.	Analyzing(A)
			CO3	Design heat transfer systems such as heat exchangers, fins etc.	Applying(P)
			CO4	Apply principles of radiative heat transfer to engineering problems.	Applying(P)
			CO5	Understand the phenomenon of diffusion and convective mass transfer	Understanding(U)
	2	DYNAMICS AND DESIGN OF MACHINERY	CO1	Do engine force analysis and to draw turning moment diagrams	Analyzing(A)
			CO2	Analyse free and forced vibrations of single degree of freedom systems and determine the natural frequencies of a two degree of freedom vibrating system	Applying(P)
			CO3	Analyze and calculate the stresses in a structural member due to combined loading and design elements under shock and impact loads	Evaluate(E)
			CO4	Design machine elements subjected to fatigue loading and riveted joints and design welded joint and close coiled helical compression spring	Evaluate(E),Analyzing(A)
	3	MANAGEMENT FOR ENGINEERS	CO1	Comprehend the concept of entrepreneurship and create business plans	Understanding(U)
			CO2	Describe the functions of management	Understanding(U)
			CO3	Demonstrate ability in decision making process and productivity analysis	Understanding(U)
			CO4	Illustrate project management technique and develop a project schedule	Applying(P)
			CO5	Summarize the functional areas of management and comprehend the concept of entrepreneurship with creation of business plans.	Understanding(U)
	4	ADVANCED MANUFACTURING ENGINEERING	CO1	To be conversant with the advanced machining process and to appreciate the effect of process parameters on the surface integrity aspects during the advanced machining process.	Understanding(U)
			CO2	Understand, how to formulate tool path and program CNC machines. . Understand, how PLC operate and control automated equipment and systems	Understanding(U)
			CO3	To understand the various non-traditional material removal process based on energy sources and mechanism employed.	Understanding(U)
			CO4	Understand the need of high velocity forming of metals	Understanding(U)
			CO5	Analyze the processes and evaluate the role of each process parameter during micro machining of various advanced material removal processes. Explain the processes used in additive manufacturing for a range of materials and applications.	Understanding(U)
	5	NON DESTRUCTIVE TESTING	CO1	Have a basic knowledge of surface NDT which enables to carry out various inspections in accordance with the established procedures	Remembering(R)
			CO2	The students will be able to differentiate various defect types and select the appropriate NDT methods for the specimen.	Understanding(U)
			CO3	Have a basic knowledge of ultrasonic and MPI technique which enables them to perform inspection of samples	Understanding(U)
	6	AUTOMOBILE ENGINEERING	CO1	Explain different automotive systems and subsystems	
			CO2	Illustrate the principles of transmission, suspension, steering and braking systems of an automobile.	
			CO3	Build a basic knowledge about the technology in electric vehicles.	
CO4			Summarize the concept of aerodynamics in automobiles		
7	COMPUTER AIDED AND DESIGN ANALYSIS LAB	CO1	Gain working knowledge in Computer Aided Design and modelling procedures.	Applying(P)	
		CO2	Gain knowledge in creating solid machinery parts.	Applying(P)	
		CO3	Gain knowledge in assembling machine elements	Applying(P)	
		CO4	Gain working knowledge in Finite Element Analysis.	Applying(P)	
		CO5	Solve simple structural, heat and fluid flow problems using standard software	Applying(P)	

8	THERMAL ENGINEERING LAB-II	CO1	Evaluate thermal properties of materials in conduction, convection and radiation	Applying(P)
		CO2	Conduct performance tests on vapour compression refrigeration and air conditioning systems	Applying(P)
		CO3	Conduct performance tests on Heat Exchangers	Applying(P)