



# Sree Chitra Thirunal College of Engineering

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## Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
1	1	MECHANICS OF MACHINERY	CO1	Describe the fundamentals of Kinematics, various planar mechanisms and interpret the basic principles of mechanisms and machines	Understanding(U)
			CO2	Perform analysis and synthesis of mechanisms	Understanding(U)
			CO3	Understand the concept of gears and cams	Understanding(U)
			CO4	Introduce the concept of gyroscope and study the influence of gyroscopic couples in ships, planes and automobiles	Understanding(U)
			CO5	Introduce the concepts of rotating and reciprocating unbalance, methods to reduce unbalance.	Applying(P)
	2	THERMAL ENGINEERING	CO1	Explain the working of steam power cycle and related components	Understanding(U)
			CO2	Explain the working of steam nozzles, impulse and reaction steam turbines	Understanding(U)
			CO3	Evaluating the performance steam power cycles, steam nozzle and steam turbines	Applying(P)
			CO4	Illustrate the performance testing and evaluation of IC engines	Applying(P)
			CO5	Calculate the air fuel ratios and understanding the combustion phenomenon and pollution in IC engines	Applying(P)
			CO6	Discuss the principles of refrigeration and air-conditioning and basic design consideration	Analyzing(A)
	3	INDUSTRIAL & SYSTEMS ENGINEERING	CO1	Implement various tools and techniques in industrial engineering	Understanding(U)
			CO2	Calculate the inventory system for a given requirement	Applying(P)
			CO3	Explain the importance of industrial relations	Remembering(R)
			CO4	Select the lean manufacturing tools to find and eliminate wastes	Understanding(U),Remembering(R)
			CO5	Identify the framework of agile manufacturing	Understanding(U)
			CO6	Identify core and extended modules of enterprise resource planning	Understanding(U)
	4	MACHINE TOOLS AND METROLOGY	CO1	Analyze various machining process and calculate relevant quantities such as velocities, forces and powers.	Understanding(U),Analyzing(A)
			CO2	Analyze of the tool nomenclature with surface roughness obtainable in each machining processes.	Remembering(R),Understanding(U),Analyzing(A)
			CO	Understand the limitations of various machining process with regard to shape formation and surface texture.	Understanding(U),Analyzing(A)
CO4			Demonstrate knowledge of the underlying principles of measurement, as they relate to mechanical measurement, electronic instrumentation, and thermal effects.	Understanding(U)	
CO			Get an exposure to advanced measuring devices and machine tool metrology.	Understanding(U),Analyzing(A)	
			CO1	Apply the procedures to measure length, angles, width, depth, bore diameters, internal and external tapers, tool angles, and surface roughness by using different instruments and by different indirect methods.	

<b>ME 2K20 A</b>	<b>5</b>	<b>MACHINE TOOLS LAB-II</b>	<b>CO2</b>	Determine limits and fits and allocate tolerances for machine components	
			<b>CO3</b>	CNC programming and to use coordinate measuring machine to record measurements of complex profiles with high sensitivity.	
			<b>CO4</b>	Use effective methods of measuring straightness, Squareness, flatness, roundness, profile, screw threads and gear teeth.	
			<b>CO5</b>	Securing knowledge of manufacturing components within the tolerance limit and surface roughness according to given drawings using various machine tools.	
	<b>6</b>	<b>THERMAL ENGINEERING LAB-I</b>	<b>CO1</b>	Measure thermo-physical properties of solid, liquid and gaseous fuels	Understanding(U),Applying(P)
			<b>CO2</b>	Identify various systems and subsystems of Diesel and petrol engines	Understanding(U),Applying(P)
			<b>CO3</b>	Analyse the performance characteristics of internal combustion engines	Understanding(U),Analyzing(A)
			<b>CO4</b>	Investigate the emission characteristics of exhaust gases from IC Engines	Analyzing(A),Applying(P)
			<b>CO5</b>	Interpret the performance characteristics of air compressors / blowers	Understanding(U),Applying(P)
	<b>7</b>	<b>INDUSTRIAL ECONOMICS AND FOREIGN TRADE</b>	<b>CO1</b>	Explain the problem of scarcity of resources and consumer behaviour, and to evaluate the impact of government policies on the general economic welfare.	Understanding(U)
			<b>CO2</b>	Take appropriate decisions regarding volume of output and to evaluate the social cost of production	Applying(P)
			<b>CO3</b>	Determine the functional requirement of a firm under various competitive conditions	Analyzing(A)
			<b>CO4</b>	Examine the overall performance of the economy, and the regulation of economic fluctuations and its impact on various sections in the society	Analyzing(A)
			<b>CO5</b>	Determine the impact of changes in global economic policies on the business opportunities of a firm	Analyzing(A)
	<b>8</b>	<b>DISASTER MANAGEMENT</b>	<b>CO1</b>	I am able to Define and use various terminologies in use in disaster management parlance and organise each of these terms in relation to the disaster management cycle	Understanding(U)
			<b>CO2</b>	I am able to Distinguish between different hazard types and vulnerability types and do vulnerability assessment	Understanding(U)
			<b>CO3</b>	I am able to Identify the components and describe the process of risk assessment, and apply appropriate methodologies to assess risk	Understanding(U)
			<b>CO4</b>	I am able to Explain the core elements and phases of Disaster Risk Management and develop possible measures to reduce disaster risks across sector and community	Applying(P)
			<b>CO5</b>	I am able to Identify factors that determine the nature of disaster response and discuss the various disaster response actions	Understanding(U)
			<b>CO6</b>	I am able to Explain the various legislations and best practices for disaster management and risk reduction at national and international level	Understanding(U)