



## Sree Chitra Thirunal College of Engineering

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### Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
ME 2K20 A	1	LINEAR ALGEBRA & CALCULUS	CO1	solve systems of linear equations, diagonalize matrices and characterise quadratic forms.	Applying(P)
			CO2	Apply partial derivatives in extreme value problem and local linear approximations	Applying(P)
			CO3	Apply multiple integrals in areas and volumes of geometrical shapes, mass and centre of gravity of plane laminas.	Applying(P)
			CO4	Explain the convergence of infinite series	Understanding(U)
			CO5	Determine the power series expansion of a given function	Applying(P)
	2	ENGINEERING PHYSICS B	CO1	Describe different cases of harmonic oscillations and concept of waves.	Understanding(U)
			CO2	Apply cosine law of thin film interference to wedge shaped films and diffraction phenomena in grating.	Applying(P)
			CO3	Explain the behavior of matter in atomic level through the principles of quantum mechanics and the basic concepts of nanoscience and technology.	Understanding(U)
			CO4	Discuss the methods of production,detection, uses of ultrasonics and factors affecting acoustic design and their remedies.	Understanding(U)
			CO5	Explain the working of different lasers,concept of holography,basic concepts of optical fibres and their uses in various engineering systems .	Understanding(U)
	3	ENGINEERING GRAPHICS	CO1	Draw the projection of points and lines located in different quadrants	Understanding(U)
			CO2	Prepare multi view projection of solids	Applying(P)
			CO3	Draw the sectional views and development of surfaces	Applying(P)
			CO4	Prepare pictorial drawing using principles of isometric and perspective projections	Applying(P)
			CO5	Convert 3D views to orthographic view and vice versa	Understanding(U)
			CO6	Obtaining multi view projection using CAD tools	Understanding(U)
	4	BASICS OF ELECTRICAL & ELECTRONICS ENGINEERING	CO1	Solve resistive electrical networks by mesh current and node voltage methods	Applying(P)
			CO2	Solve magnetic circuits using Faradays laws and Amperes Circutal law	Applying(P)
			CO3	Solve simple ac circuits in steady state conditions	Applying(P)
	5	LIFESKILLS	CO1	Outline different life skills required in personal and professional life.	Understanding(U)
			CO2	Develop an awareness of the self and apply well defined techniques to cope with emotions and stress.	Applying(P)
			CO3	Explain the basic mechanics of effective communication and demonstrate these through presentations.	Understanding(U)
			CO4	Take part in group discussions.	Analyzing(A)
			CO5	Make use of appropriate thinking and problem solving techniques to solve new problems.	Applying(P)
			CO6	Demonstrate the basics of team work and leadership.	Understanding(U)
	6	ENGINEERING PHYSICS LAB	CO1	. Apply cosine law in understanding the interference from thin films with Airwedge and Newton's ring setup.	Applying(P)
			CO2	Illustrate the phenomenon of diffraction through transmission grating- using spectrometer and find the dispersive power and resolving power of grating.	Applying(P)
CO3			Interpret theV-I relation in solar cell, the strain-voltage relation in strain gauge, (m/l2)relation in melde's arrangement for trans &longi. waves,analysing signal voltage and frequency using CRO.	Applying(P)	
7	ELECTRICAL & ELECTRONICS WORKSHOP	CO1	Demonstrate safety measures against electric shocks.	Understanding(U)	
		CO2	Identify the tools used for electrical wiring, electrical accessories, wires, cables, batteries and standard symbols	Understanding(U)	
		CO3	Develop the connection diagram for wiring simple lighting circuits for domestic buildings	Applying(P)	

8	<b>BASICS OF ELECTRICAL &amp; ELECTRONICS ENGINEERING</b>	<b>CO4</b>	Summarize the specifications, working and applications of passive and active electronic components	Understanding(U)
		<b>CO5</b>	Explain the working of DC power supply and voltage amplifier	Understanding(U)
		<b>CO6</b>	Outline the principles of electronic instrumentation and communication systems	Understanding(U)
9	<b>ELECTRICAL &amp; ELECTRONICS WORKSHOP</b>	<b>CO4</b>	Identify and test various electronic components	Remembering(R)
		<b>CO5</b>	Draw circuit schematics with EDA tools	Analyzing(A)
		<b>CO6</b>	Assemble and test electronic circuits on boards	Create(C)
		<b>CO7</b>	Work in a team with good interpersonal skills	Analyzing(A)