



# Sree Chitra Thirunal College of Engineering

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## Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
AM 2K20	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 CHEMISTRY	CO1	Describe the basic concepts of electrochemistry and corrosion to explore its possible applications in various engineering fields.	Understanding(U)
			CO2	Interpret the spectral data from spectroscopic techniques like UV-Visible, IR, NMR and its applications or predict the Spectral data of a given structure.	Understanding(U)
			CO3	Outline the principle, classification, instrumentation, procedure and applications of TGA, DTA, Column Chromatography, TLC, Gas Chromatography, HPLC and SEM analytical instruments.	Understanding(U)
			CO4	Explain the basics of stereochemistry, its application and structure properties application of polymers (Kevlar and ABS plastics)	Understanding(U)
			CO5	Discuss the quality of water (based on hardness, DO) and water treatment methods (sewage and municipal) to develop skills for treating wastewater. Understanding(U)	Understanding(U)
	3	ENGINEERING MECHANICS	CO1	Recall principles and theorems related to rigid body mechanics	Remembering(R)
			CO2	Describe the components of system of forces acting on the rigid body	Applying(P)
			CO3	Apply the conditions of equilibrium to various practical problems involving different force system.	Applying(P)
			CO4	Apply appropriate theorems, principles or formulae for solving problems of mechanics.	Applying(P)
			CO5	Solve problems involving rigid bodies, applying the properties of distributed areas and masses	Applying(P)
	4	BASICS OF CIVIL & MECHANICAL ENGINEERING	CO1	Recall the roll of Civil Engineer and to relate the various disciplines of Civil Engineering.	Understanding(U)
			CO2	Explain different types of buildings, building components, building materials and building construction.	Understanding(U)
			CO3	Describe the importance, objectives and principles of surveying.	Understanding(U)
			CO4	Summarise the basic infrastructure facilities MEP, HVAC, elevators, escalators and ramps.	Understanding(U)
			CO5	Discuss the materials, energy systems, water management and environment for green buildings.	Understanding(U)
	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 teamwork and leadership.	Understanding(U)	
6	ENGINEERING CHEMISTRY LAB	CO1	Synthesize of UF resin and PF resin	Applying(P)	
		CO2	Interpret the IR spectra and NMR spectra of simple organic compounds	Applying(P)	
		CO3	Estimate the Water Quality parameters (Hardness, DO, pH, Conductivity, Fe content)	Applying(P)	

		<b>CO4</b>	Analyse and accurately determine the concentration of analyte in a given sample using conventional analytical laboratory techniques (Potentiometric Titration, Colorimetric, Iodometric Titrations, Complexometric Titration)	Applying(P)
7	<b>CIVIL &amp; MECHANICAL WORKSHOP</b>	<b>CO4</b>	Explain appropriate safety measurements with respect to the mechanical workshop.	Understanding(U)
		<b>CO5</b>	Understand the usage of appropriate hand tools, instruments and machines with respect to the various mechanical trades	Understanding(U)
		<b>CO6</b>	Understanding Basic Mechanical Workshop operation and making models in accordance with the materials and objects.	Understanding(U)
8	<b>CIVIL &amp; MECHANICAL WORKSHOP</b>	<b>CO1</b>	Name the different tools and devices used for civil engg measurements and explain its uses..	Understanding(U)
		<b>CO2</b>	Demonstrate the steps involved in basic civil engg activities of setting out operation, plot measurement and levelling.	Applying(P)
		<b>CO3</b>	Choose methods and materials required for basic civil engg activities of masonry work and plumbing.	Understanding(U)