



Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

Batch	Sno	Subject	CO	Topic	Bloom's taxonomy level
EC 2K20 A	1	BASICS OF CIVIL & MECHANICAL ENGINEERING	CO1	Recall the roll of civil engr and to relate the various disciplines of civil engg	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)
	2	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)
	3	LINEAR ALGEBRA & CALCULUS	CO1	solve systems of linear equations, diagonalize matrices and 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)
	4	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)
5	ENGINEERING MECHANICS	CO1	Identify the principles and theorems related to rigid body mechanics	Understanding(U)	
		CO2	Calculate the components of system of forces acting on a rigid body	Applying(P)	
		CO3	Apply the conditions of equilibrium to various practical problems involving different forces.	Applying(P)	
		CO4	Solve problems of mechanics by using appropriate theorems, principles or formulae	Applying(P)	
		CO5	Solve problems involving rigid bodies, applying the properties of distributed areas and masses.	Applying(P)	
		CO1	Synthesize of UF resin and PF resin	Applying(P)	
		CO2	Interpret the IR spectra and NMR spectra of simple organic compounds	Applying(P)	

6	ENGINEERING CHEMISTRY LAB	CO3	Estimate the Water Quality parameters (Hardness, DO, pH, Conductivity, Fe content)	Applying(P)
		CO4	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	CIVIL & MECHANICAL WORKSHOP	CO1	Name the tools & devices for measurements and its uses.	Understanding(U)
		CO2	Demonstrate the steps involved in basic civil engineering activities of setting out operation, plot measurement and levelling.	Understanding(U)
		CO3	Choose methods and materials used for basic civil engineering activities of masonry work and plumbing.	Understanding(U)
8	BASICS OF CIVIL & MECHANICAL ENGINEERING	CO1	To analyze Thermodynamic cycles and calculate its efficiency. Understand the working and features of ic engines	Understanding(U),Analyzing(A)
		CO2	Understand the basic principles of refrigeration and air-conditioning. Understand the working of hydraulic machines and calculate efficiency . Understand power transmission drives .	Understanding(U),Applying(P)
		CO3	Understand the basic manufacturing ,machining and joining processes.	Understanding(U)
9	CIVIL & MECHANICAL WORKSHOP	CO3	Under standing of appropriate safety measures with respect to the mechanical workshop..Under standing of different hand tools and its useage.	Understanding(U)
		CO4	Under standing of the useage of appropriate hand tools ,instruments and machines with respect to the various trades	Applying(P)
		CO5	Under standing basic mechanical workshop operations and making models in accordance with materials and objects.	Applying(P)