SRI VASAVI INSTITUTE OF ENGINEERING & TECHNOLOGY
Department of Mechanical Engineering

COURSE OUTCOMES

Academic year-2022-2023 **Year/sem- II-I**

CO Number	Course Outcome(CO) Statement- At the end of the Course, the students will be able to	Blooms Taxonomy
	VECTOR CALCULUS & FOURIER TRANSFORMS(C211)	
C211.1	interpret the physical meaning of different operators such as gradient, curl and divergence	Evaluate
C211.2	estimate the work done against a field, circulation and flux using vector calculus	Evaluate
C211.3	apply the Laplace transform for solving differential equations	Apply
C211.4	find or compute the Fourier series of periodic signals know and be able to apply integral expressions for the forwards and inverse Fourier transform to a range of non-periodic waveforms	Remember
C211.5	identify solution methods for partial differential equations that model physical processes	Apply
	MECHANICS OF SOLIDS (C212)	
C212.1	Describe the stress and strain under different loadings.	Understand
C212.2	Investigate the construction of shear force diagrams and bending moment diagrams.	Create
C212.3	Examine the bending and shear stress induced in the beams.	Analyze
C212.4	Appraise slope and deflection for different support arrangements.	Evaluate
C212.5	Execute how a cylinder fails what kind of stresses induced in cylinders subjected to internal, external pressures.	Apply
	FLUID MECHANICS &HYDRAULIC MACHINERY(C213)	
C213.1	Explain properties of fluids and measure pressure of the flowing fluid	Evaluate
C213.2	Use Euler's equation, Bernoulli's equation, Energy momentum equations and solve various fluid flow problems	Apply
C213.3	Perform dimensional analysis and explain boundary layer theory	Analyze
C213.4	Calculate hydrodynamic forces and efficiencies. Appraise the performance of turbines under varying load conditions	Evaluate
C213.5	Appraise the performance of pumps under varying load conditions. Explain hydraulic systems like lifts which are suitable for industrial requirements	Evaluate
	PRODUCTION TECHNOLOGY(C214)	
C214.1	understand the principles of casting and Pattern making	Understand
C214.2	design the gating system and understand special casting processes	Apply

C218.4	Understand the principles of various welding processes and analyze welded portions	Analyze
C218.5	Understand the principles of various moulding process	Understand
DRAFTING AND MODELING LAB (C219)		
C219.1	Understand skills in engineering drawing and to introduce drawing packages and commands for computer aided drawing and modeling	Understand
C219.2	Utilize various commands in AUTOCAD to draw geometric entities and to create 2D wireframe models	Apply
C219.3	Interpret various commands in AutoCAD to draw geometric entities and to create 3D wire frame models	Apply
C219.4	Construct geometrical model of simple solids, machines and machine parts.	Analyze
C219.5	Understand view points and view ports, view point coordinates and views displayed and develop computer aided solid models with isometric and orthographic projection.	Understand
ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE(C2110)		
C2110.1	Explain the concept of Traditional knowledge and its importance	Understand
C2110.2	Know the need and importance of protecting traditional knowledge	Understand
C2110.3	Explain the various enactments related to the protection of traditional knowledge	Understand
C2110.4	Explain the concepts of Intellectual property to protect the traditional knowledge	Understand
C2110.5	Explain the concepts of traditional knowledge in different sector	Understand

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C214.3	list out various welding defects and propose remedial measures and choose appropriate type of welding process for joining of metals.	Understand
C214.4	distinguish between hot working and cold working processes and understand the principles of various forging, rolling,extrusion, drawing operations	Analyze
C214.5	understand the principles of various Sheet metal forming, High energy rate forming processes.	Understand
KINEMATICS OF MACHINERY (C215)		
C215.1	Contrive a mechanism for a given plane motion with single degree of freedom.	Apply
C215.2	Suggest and analyze a mechanism for a given straight line motion and automobile steering motion	Analyze
C215.3	Analyze the motion (velocity and acceleration) of a plane mechanism.	Analyze
C215.4	Suggest and analyze mechanisms for a prescribed intermittent motion like opening and closing of IC engine valves etc.	Analyze
C215.5	Select a power transmission system for a given application and analyze motion of different transmission systems	Apply
COMPUTER AIDED ENGINEERING DRAWING PRACTICE(C216)		
C216.1	Draw the projections of solids inclined both planes	Apply
C216.2	Draw the sections of solids and development of surfaces	Apply
C216.3	Draw the intersections of solids and Perspective projections	Apply
C216.4	Understand the commands used in CAD	Understand
C216.5	Model the 2D and 3D objects using CAD	Apply
FLUID MECHANICS & HYDRAULIC MACHINES LAB (C217)		
C217.1	Explain properties of fluids and measure pressure of the flowing fluid	Evaluate
C217.2	Use Euler's equation, Bernoulli's equation, Energy momentum equations and solve various fluid flow problems	Apply
C217.3	Perform dimensional analysis and explain boundary layer theory	Analyze
C217.4	Calculate hydrodynamic forces and efficiencies. Appraise the performance of turbines under varying load conditions	Evaluate
C217.5	Appraise the performance of pumps under varying load conditions. Explain hydraulic systems like lifts which are suitable for industrial requirements	Evaluate
PRODUCTION TECHNOLOGY LAB (C218)		
C218.1	Understand the principles of casting	Understand
C218.2	Perform the operation on wood turning on lathe	Apply
C218.3	Understand the various principles of bending	Understand