



**DEPARTMENT OF MECHANICAL ENGINEERING**

**2.6.1. Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated (SEM – VII – C – SCHEME )**

**2022 REGULATION-COURSE OUTCOMES**

SEMESTER	COURSE CODE	COURSE NAME	COURSE ID	COURSE OUTCOME
VII	MEC701	Design of Mechanical System	CO 1	Apply the concept of system design
			CO 2	Select appropriate gears for power transmission on the basis of given load and speed
			CO 3	Design material handling systems such as hoisting mechanism of EOT crane.
			CO 4	Design belt conveyor systems
			CO 5	Design engine components such as cylinder, piston, connecting rod and crankshaft
			CO 6	Design pumps for the given applications.
VII	MEC702	Logistics and Supply Chain Management	CO 1	Demonstrate a sound understanding of Logistics and Supply Chain Management concepts and their role in today's business environment.
			CO 2	Identify the drivers of supply chain performance and risks in supply chain management
			CO 3	Apply various techniques of inventory management and rank the items using inventory management technique
			CO 4	Apply various strategies and techniques to minimize overall logistics cost.
			CO 5	Understand the role of digitization in supply chain management leading to sustainability
			CO 6	Apply various mathematical models/tools to design the supply chain network.
VII	MEDLO7032	Renewable Energy Sources	CO 1	Describe the need for renewable energy and its potential for the development of a sustainable Environment.
			CO 2	Analyze different solar collectors using geometrical parameters and photovoltaic for generation of Solar energy.
			CO 3	Identify and analyze various wind turbine energy harnessment techniques.
			CO 4	Design biogas plant for harnessing energy from organic waste.
			CO 5	Describe significance of hydrogen energy to



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				fulfill present and future energy needs.
			<b>CO 6</b>	Describe the operating principle of geothermal energy and ocean energy and their role in sustainable Development.
<b>VII</b>	<b>MEDLO7041</b>	<b>Machinery Diagnostics</b>	<b>CO 1</b>	Relate basic concepts of Machinery Diagnostic.
			<b>CO 2</b>	Describe the working of Vibration Measuring Instruments
			<b>CO 3</b>	Apply different Signal Processing Techniques in Vibration Measurement.
			<b>CO 4</b>	Identify common faults in Machinery using Vibration Spectrum
			<b>CO 5</b>	Interpret the Vibration Signals for Monitoring and Prognosis.
<b>VII</b>	<b>ILO7017</b>	<b>Disaster Management and Mitigation Measures</b>	<b>CO 1</b>	Get to know natural as well as manmade disaster and their extent and possible effects on the economy
			<b>CO 2</b>	Plan of national importance structures based upon the previous history.
			<b>CO 3</b>	Get acquainted with government policies, acts and various organizational structure associated with an emergency.
			<b>CO 4</b>	Get to know the simple dos and don'ts in such extreme events and act accordingly.

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<b>VIII</b>	<b>MEC801</b>	<b>Operations Planning and Control</b>	<b>CO 1</b>	Illustrate operations functions and manage operations in a better way.
			<b>CO 2</b>	Apply various strategies to develop aggregate production plan based on the demand forecasting
			<b>CO 3</b>	Apply various algorithms in scheduling and sequencing of manufacturing and service operations
			<b>CO 4</b>	Develop Material Requirements Plans (MRP) to estimate the planned order releases.
			<b>CO 5</b>	Apply various techniques for facility layout planning and line balancing to optimize the resources



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			<b>CO 6</b>	Demonstrate the importance of implementation of JIT, Lean, Agile and Synchronous Manufacturing in manufacturing and service organizations.
<b>VIII</b>	<b>MEDLO8051</b>	<b>Composite Materials</b>	<b>CO 1</b>	Select the type of material for the fibers and matrix in a composite material for the given application
			<b>CO 2</b>	Relate stresses and strains through the elastic constants for a given lamina..
			<b>CO 3</b>	Evaluate elastic properties of a lamina based on the properties of its constituents.
			<b>CO 4</b>	Predict failure of a lamina under the given loading condition.
			<b>CO 5</b>	Select the number of lamina and their stacking sequence in a composite material for the given loading condition.
			<b>CO 6</b>	Identify the type of damage occurring in a composite structure and select an appropriate method to Repair it.
<b>VIII</b>	<b>MEDLO8063</b>	<b>Total Quality Management</b>	<b>CO 1</b>	To apply QM and principles of TQM in organizational development process.
			<b>CO 2</b>	To apply the QC & QM tools in process improvement.
			<b>CO 3</b>	To apply SQC techniques to improve process quality.
			<b>CO 4</b>	To apply Six Sigma project in TQM Implementation
			<b>CO 5</b>	To apply QMS and Certification for Quality Accreditation
			<b>CO 6</b>	To apply the advanced tools for Quality Sustainability.
<b>VIII</b>	<b>ILO8029</b>	<b>Environmental Management</b>	<b>CO 1</b>	<b>Understand the concept of environmental management</b>
			<b>CO 2</b>	<b>Understand ecosystem and interdependence, food chain etc.</b>
			<b>CO 3</b>	<b>Understand and interpret environment related legislations</b>



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