DRONACHARYA
College of Engineering
Khentawas, Farrukh Nagar, Gurugram, Haryana
Approved by: All India Council for Technical Education (AICTE), New Delhi
Affiliated to: Gurugram University, Gurugram

DEPARTMENT OF MECHANICAL ENGINEERING

ACADEMIC YEAR 2023-24

SEMESTER Vth

COMPUTER AIDED DESIGN & MANUFACTURING (PCC-ME -301G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Demonstrate the knowledge of Computer Aided design and Additive Manufacturing.
(CO2)	Able to understand the concept of wireframe modeling, surface modeling and solid modeling.
(CO3)	Able to understand the method of manufacturing of liquid based, powder based and solid based techniques

SOLID MECHANICS (PCC-ME -303G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Apply and use energy methods to find force, stress and displacement in simple structures and springs
(CO2)	Understand and determine the stresses and strains in pressure vessels.
(CO3)	Knowledge of stress functions, and calculate stresses in rotating rings, discs, and curved beams.
(CO4)	- Evaluate the behaviour and strength of structural elements subjected to three dimensional stress system.

MANUFACTURING TECHNOLOGY-I (PCC-ME -305G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Demonstrate the knowledge about different sand moulding and metal casting processes.
(CO2)	Understand the plastic deformation of metals under rolling, extrusion, forging and sheet metal working.
(CO3)	Acquire knowledge about basic welding processes and their selection for fabrication of different components
(CO4)	Learn about different gear manufacturing and gear finishing operations.
(CO5)	Acquire the basics of powder metallurgy.

KINEMATICS OF MACHINE (PCC-ME -307G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	To understand about the applications of mechanism and machines.
(CO2)	To understand about the basics Cams and Friction
(CO3)	Students get familiarity about power transmitted with Belts and pulleys and also Gears and Gear Trains.
(CO4)	Students having familiarization with calculate Kinematics Analysis of Plane Mechanisms
(CO5)	Students would be able to know the Kinematics synthesis of Mechanisms.

FLUID MACHINES (PCC-ME -309G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Application of momentum equation and its application
(CO2)	Understand the construction, working principle and design analysis of hydraulic turbines.
(CO3)	Expedite construction, working principle and design analysis of pumps.
(CO4)	Knowledge of the design of a prototype on the basis of dimensional analysis.

COMPUTER AIDED DESIGN & MANUFACTURING LAB (LC-ME -311G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Display of the basic fundamentals of modeling package.
(CO2)	Explore the surface and solid modeling features
(CO3)	Learning the techniques of 3D modeling of various mechanical parts.
(CO4)	To expedite the procedure and benefits of FEA and CAE.

FLUID MACHINES LAB (LC-ME -313G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the concept of momentum equation.
(CO2)	Knowledge of construction, working principle and performance of hydraulic turbines.
(CO3)	Learn construction, working principle and performance of pumps.
(CO4)	Explore construction, working principle and performance of hydraulic ram.

KINEMATICS OF MACHINES LAB (LC-ME -315G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Understand the various practical demonstrations of mechanism.
(CO2)	Knowledge of Motions in mechanism with practical demonstration.
(CO3)	Learning the Special purpose machine members used in designing of a machine.
(CO4)	Synthesis of working model using the various linkages.

ECONOMICS FOR ENGINEERS (HSMC -01G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	The students will able to understand the basic concept of economics.
(CO2)	The student will able to understand the concept of production and cost.
(CO3)	The student will able to understand the concept of market.
(CO4)	The student will able to understand the concept of privatization, globalization and banks.

FINANCIAL ACCOUNTING (HSMC -03G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	define bookkeeping and accounting
(CO2)	explain the general purposes and functions of accounting
(CO3)	explain the differences between management and financial accounting
(CO4)	describe the main elements of financial accounting information – assets, liabilities, revenue and expenses
(CO5)	identify the main financial statements and their purposes.

AIR AND NOISE POLLUTION AND CONTROL (OEC –ME-301G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	an understanding of the nature and characteristics of air pollutants, noise pollution and basic concepts of air quality management
(CO2)	ability to identify, formulate and solve air and noise pollution problems
(CO3)	ability to design stacks and particulate air pollution control devices to meet applicable laws.

INSTALLATION TESTING & MAINTENANCE OF ELECTRICAL EQUIPMENTS (OEC –ME-303G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Unload the electrical equipment/machines based on scientific procedure
(CO2)	Commission various electrical equipment/machines
(CO3)	Prepare maintenance schedule of different equipment and machines
(CO4)	Prepare trouble shooting chart for various electrical equipment, machines and domestic appliances v. Carry out different types of earthing
(CO5)	Apply electrical safety regulations and rules during maintenance.

MICROPROCESSOR AND INTERFACING (OEC –ME-305G)

CourseOutcome(CO)	DetailsofCourseOutcomes
(CO1)	Explain the architecture, pin configuration of various microprocessors and Interfacing ICs
(CO2)	Identify various addressing modes
(CO3)	Perform various microprocessor based programs
(CO4)	Apply the concepts of 8086 programming like interfacing, interrupts, stacks & subroutines.
(CO5)	Interpret & Solve various automation based problems using microprocessor