

IIIrd Sem.

FUNDAMENTALS OF MANAGEMENT	
SUBJECT CODE HS-201 N	
COURSE OUTCOMES	
CO1	Understand the concept of management, evolution of management thought and different approaches.
CO2	Knowledge of concept of planning and organization in an organization.
CO3	Knowledge of manpower planning, recruitment and training in an organization.
CO4	Knowledge of importance of communication, leadership and motivation theories.
CO5	Knowledge and application of network analysis techniques and management information system.
CO6	Knowledge of corporate social responsibility and business ethics.

THERMODYNAMICS	
SUBJECT CODE ME-201N	
COURSE OUTCOMES	
CO1	Understand the basic concepts of thermodynamic system, control volume, processes, thermodynamic properties, equilibrium of system.
CO2	Understand the laws of thermodynamics and their application.
CO3	To impart knowledge to the students about different mathematical relations used in thermodynamics.
CO4	To impart in depth knowledge of pure substance and its properties during different phase transformations.
CO5	To impart knowledge to the students about Carnot cycle, heat engine, heat pump.
CO6	Understand the concept of entropy and exergy and their application to thermodynamic systems

SUBJECT NAME: MECHANICS OF SOLIDS-I	
SUBJECT CODE: ME-203N	
COURSE OUTCOMES	
CO1	Ability to understand the force, force system, principles and their application on different system.
CO2	Ability to calculate centroid and moment of inertia of different laminas and solids and application in different problems.
CO3	Students will understand the fundamentals of stress, strain, their applications and effect on design related problems in real world.
CO4	Students will be able to apply principles of shear force, bending moments, slope and deflection for structural analysis and their interpretation.
CO5	Will be able to analyze circular mechanical objects under torsion.
CO6	Ability to understand concept of buckling of columns and struts and their application.

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MACHINE DRAWING	
ME-205N	
COURSE OUTCOME	
CO1	Ability to draft their technical ideas
CO2	Knowledge about the various practices with regard to the dimensioning, geometric tolerances, sectioning and development of views.
CO3	Understanding the importance of the linking functional and visualization aspects in the preparation of the part drawings
CO4	Preparation of the part or assembly drawings as per the conventions.
CO5	Interpretation of machine drawings that in turn help the students in the preparation of the production drawings
CO6	Ability to prepare of a bill of materials

KINEMATICS OF MACHINES	
ME-207 N	
COURSE OUTCOMES	
CO1	Ability to understand and design different lower and higher pairs for motion mechanisms.
CO2	To understand the concept of linkages and mechanisms used in machines and mechanical systems.
CO3	Ability to understand the principles of velocity and acceleration in linkages and their calculations.
CO4	Ability to understand the principles of friction and their application to screw threads and screw jack.
CO5	Ability to understand cam and follower terminology and construction cam profiles used in engineering applications.
CO6	Ability to design and analyze belt and chain drive system

MATERIAL SCIENCE	
ME-209N	
COURSE OUTCOMES	
CO1	Develop the knowledge of basics of materials and crystallography, crystal defects.
CO2	Understanding the concept of material deformation, recrystallization and grain growth.
CO3	Understand the concept of phase diagrams and their applications.
CO4	Ability to understand the heat treatment processes and their effects, selection and application.

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CO5	Knowledge of ceramics, polymers, composites and smart materials, their applications and properties.
CO6	Understand the fatigue failure, creep phenomena and techniques of material characterization.

ENERGY STUDIES	
MPC-202N	
COURSE OUTCOME	
CO1	Knowledge of energy types, sources and its need.
CO2	Understand the principles of energy management, energy audit and methodology.
CO3	Knowledge of conventional energy generating plants, their working, merits and demerits.
CO4	Knowledge of non-conventional energy generating plants, their working, merits and demerits.
CO5	Knowledge of effects of energy resources on environment.
CO6	Knowledge of effects of energy on socioeconomic scenario.

KINEMATICS OF MACHINES LAB	
ME-211 N	
OUTCOMES	
CO1	Ability to understand various types of basic mechanisms & their applications.
CO2	Students will be able to determine velocity & acceleration of slider in slider-crank mechanism.
CO3	Students will be able to analyze various steering mechanism.
CO4	Ability to analyze friction phenomena in belts and screw jack
CO5	To learn about various steering mechanism used in automobiles.
CO6	Ability to analyze Hooke's joint.

Material Science Lab	
ME-213N	
COURSE OUTCOMES	
CO 1	Understand the phenomena of crystal structure and imperfection
CO 2	Ability to design and conduct experiments, acquire data, analyze and interpret data.
CO 3	Ability to determine the grain size and strain hardening phenomenon in different metals by means of experiments.
CO4	Ability to learn about stress concentration factor and microstructures of different

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	materials.
CO5	To learn about heat treatment processes through experiments.
CO6	Ability to perform Fatigue and creep test on different materials.

SUBJECT NAME: MECHANICS OF SOLIDS LAB	
SUBJECT CODE: ME-215N	
COURSE OUTCOMES	
CO1	Students will get the knowledge of different mechanical properties of material, their effect in designing a component.
CO2	Students will be able to operate the material testing machines, collecting the data from machines and interpreting the same for sustainable solution.
CO3	Ability to analyze ferrous material under shear stresses.
CO4	Ability to analyze behavior of mechanical components under tension, compression, bending.
CO5	Ability to analyze mechanical components under impact loading.
CO6	Write individual and group reports: present objectives, describe test procedures and results, synthesize and discuss the test results.

IVth Sem

MATHEMATICS-III	
SUBJECT CODE AS-201 N	
COURSE OUTCOMES	
CO1	Analyze and solve engineering problems using Fourier Series.
CO2	Solve engineering problems using Complex Integration.
CO3	Solve engineering problems using partial differential equations and
CO4	Ability to solve linear programming problems through simplex and graphical method.
CO5	Ability to apply theory of probability to engineering problems
CO6	Knowledge of standard distribution theories for solving the problems

PRODUCTION TECHNOLOGY -I	
SUBJECT CODE ME-202 N	
COURSE OUTCOMES	
CO1	Understand the cutting tool geometry and mechanics of metal cutting.
CO2	Understand the concept and principles of Tool Wear, Tool Economy, Machinability and tool life.
CO3	Knowledge of fundamentals of milling and drilling machine tools, their components and terminology.
CO4	Knowledge of specification of various machine tools.
CO5	Knowledge of holding devices and indexing methods and analysis of problems.
CO6	Understand metrology & machine tools testing.

STEAM GENERATION & POWER	
ME-204 N	
OUTCOMES	
CO1	Understand the functioning and detail description of boilers and its parts.
CO2	Ability to prepare and analysis heat balance sheet.
CO3	Knowledge of simple and modified Rankine cycle and working of steam engine.
CO4	Ability to understand the working of steam turbines, design and analysis of the steam turbine.
CO5	Knowledge of fundamentals of nozzle, design and analysis of steam flow through steam nozzles.
CO6	Students learn about the working of different types of condensers.

FLUID MECHANICS	
ME-208N	
COURSE OUTCOMES	

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CO1	Understand the properties of fluid along with pressure measurement techniques
CO2	Understand the basic concepts of fluid statics, fluid kinematics and analyze the laws of fluid dynamics and its applications.
CO3	Understand and apply the basic concepts of Fluid Mechanics to carry out professional engineering activities in the field of fluids.
CO4	Ability to calculate the major and minor losses through pipes and learn to draw the hydraulic gradient and total energy lines.
CO5	Knowledge of the concept of laminar and turbulent flow
CO6	Understand the concept of boundary layer and flow over bodies.

DYNAMICS OF MACHINES	
ME-210N	
COURSE OUTCOME	
CO1	Analyze static force and dynamic force in mechanisms.
CO2	Ability to understand the concepts of gears and gear trains, terminology and calculations.
CO3	Understand the fundamentals of brakes, dynamometer and their analysis.
CO4	Understand the functioning of mechanical governors, applications and calculation.
CO5	Understand the concept of balancing of rotating masses
CO6	Understand the gyroscopic effect

ENERGY STUDIES	
MPC-202N	
COURSE OUTCOME	
CO1	Knowledge of energy types, sources and its need.
CO2	Understand the principles of energy management, energy audit and methodology.
CO3	Knowledge of conventional energy generating plants, their working, merits and demerits.
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FLUID MECHANICS LAB	
ME-214N	
COURSE OUTCOMES	
CO1	Ability to analyze floating , submerged and partially submerged bodies.
CO2	Ability to measure discharge through various discharge measuring instruments.
CO3	Determine the coefficient of discharge for various flow measurement devices.
CO4	Calculate flow characteristics such as Reynolds number, friction factor from laboratory measurements. And Identify and discuss foundation-level fluid phenomena including laminar to turbulent transition, turbulence
CO5	Student will be able to utilize the knowledge in the design of water supply pipe networks and measure the rate of flow in pipes and channels
CO6	Ability to measure frictional losses in pipes.

DYNAMICS OF MACHINES LAB	
ME-216N	
COURSE OUTCOMES	
CO1	Understand the working of Flywheel and calculating the inertia.
CO2	Ability to experimentally calculate Gyroscopic couple of a motorised gyroscope
CO3	Ability to analyze balancing of rotating mass experimentally.
CO4	Ability to calculate whirling speed of shaft through experiment.
CO5	Understand the working of various types of governors and their demonstration.
CO6	To study various types of brakes used in automobiles.

STEAM GENERATION AND POWER LAB	
ME-218 N	
COURSE OUTCOMES	
CO1	Knowledge of different types of boilers and their accessories.
CO2	Ability to prepare heat balance sheet through calculations.
CO3	Understand the working of the steam engine and their parts.
CO4	Ability to determine the power and efficiency of the steam turbine and cooling tower
CO5	Ability to understand the concept of dryness fraction and its measurement.
CO6	Ability to calculate efficiency of reciprocating compressor

PRODUCTION TECHNOLOGY LAB	
SUBJECT CODE ME-220 N	
COURSE OUTCOMES	
CO1	Understand the cutting tool geometry and mechanics of metal cutting.
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CO3	Knowledge of fundamentals of milling and drilling machine tools, their components and terminology.
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