

Mahatma Education Society's
Pillai HOC College of Engineering and Technology, Rasayani
Department of Mechanical Engineering

Mechanical Engineering Program Course outcomes:

Quality improvement in education encompasses the all-round development of learners. This requires a multi-pronged approach aiming at quality curriculum and its effective transaction in an enabling environment. Learning outcomes specify what learners' new behaviors will be after a learning experience. They state the knowledge, skills, and attitudes that the students will gain through your course. Since we are affiliated with University of Mumbai, in addition to university curriculum, course outcomes for Mechanical graduate program were finalized in a brain storming sessions by senior faculty. The course outcomes for the graduate program in Mechanical Engineering are listed below;

Course outcomes: Semester III

Course Name: MEC301 Engineering Mathematics-III	
MEC 301.1	Understand the concept of Laplace transform and its application to solve the real integrals in engineering problems.
MEC 301.2	Understand the concept of inverse Laplace transform of various functions and its applications in engineering problems.
MEC 301.3	Expand the periodic function by using Fourier series for real life problems and complex engineering problems.
MEC 301.4	Understand complex variable theory, application of harmonic conjugate to get orthogonal trajectories and analytic function
MEC 301.5	Apply Matrix algebra to solve the engineering problems
MEC 301.6	Solve Partial differential equations by applying numerical methods.

Course Name: MEC303 Strength of Materials	
MEC303.1	To understand the concept of stress and strain for homogeneous, isotropic material
MEC303.2	To use concept of physics to solve variety of applied real world problems using the appropriate tools backed by mathematical to solve structural problem involving strength.
MEC303.3	To determine the stress and strain in members subjected to combined loading and apply the theories of failure and static loading.
MEC303.4	To determine and analyse principal stress, maximum shearing and the stress acting on structural member.
MEC303.5	To determine the deflection and rotation produced by axial, torsion and flexural load
MEC303.6	To design simple bars, beams and circular shafts for allowable stresses and loads.

Course Name: MEC303 Production Process	
MEC303.1	Understand the Casting Process
MEC303.2	Understand the Principles of forming such as Rolling, Extrusion etc.
MEC303.3	Understand the Applications of various types of welding processes such as TIG, MIG, Soldering & Brazing etc.
MEC303.4	Differentiate the chip forming process such as turning, milling, drilling etc.
MEC303.5	Illustrate the concept of producing polymer components & ceramic components.
MEC303.6	Understand the Principles and working of Non-traditional Manufacturing.
MEC303.7	Understand the manufacturing technologies enabling Industry 4.0.

Course Name: MEC304 Materials and Metallurgy	
MEC 304.1	Identify the various classes of materials and comprehend their properties
MEC 304.2	Apply phase diagram concepts to engineering applications
MEC 304.3	Apply particular heat treatment for required property development
MEC 304.4	Identify the probable mode of failure in materials and suggest measures to prevent them
MEC 304.5	Choose or develop new materials for better performance
MEC 304.6	Decide an appropriate method to evaluate different components in service

Course Name: MEC305 Thermodynamics	
MEC305.1	Demonstrate application of the laws of thermodynamics to a wide range of systems.
MEC305.2	Compute heat and work interactions in thermodynamic systems
MEC305.3	Demonstrate the interrelations between thermodynamic functions to solve practical problems.
MEC305.4	Compute thermodynamic interactions using the steam table and Mollier chart
MEC305.5	Compute efficiencies of heat engines, power cycles.
MEC305.6	Apply the fundamentals of compressible fluid flow to the relevant systems

Course Name: MEL301 Materials Testing	
MEL301.1	Prepare metallic samples for studying its microstructure following the appropriate procedure.
MEL301.2	Identify effects of heat treatment on microstructure of medium carbon steel and hardenability of steel using Jominy end quench test

MEL301.3	Perform Fatigue Test and draw S-N curve
MEL301.4	Perform Tension test to Analyse the stress - strain behaviour of materials
MEL301.5	Measure torsional strength, hardness and impact resistance of the material
MEL301.6	Perform flexural test with central and three point loading conditions

Course Name: MEL302: Machine Shop Practice	
MEL 302.1	Know the specifications, controls and safety measures related to machines and machining operations.
MEL 302.2	Use the machines for making various engineering jobs
MEL 302.3	Perform various machining operations
MEL 302.4	Perform Tool Grinding
MEL 302.5	Perform welding operations.

Course Name: MESBL301 CAD Modelling	
MESBL301.1	Understand the types of CAD Model creations.
MESBL301.2	Visualize and prepare 2D modelling of a given object using modelling software.
MESBL301.3	Understand to build solid model of a given object using 3D modelling software.
MESBL301.4	Visualize and develop the surface model of a given object using modelling software.
MESBL301.5	Generate assembly models of given objects using assembly tools of a modelling software.
MESBL301.6	Understand to perform product data exchange among CAD Systems.

Course outcomes: Semester IV

Course Name: MEC401 Engineering Mathematics-IV	
MEC 401.1	Apply the concept of Vector calculus to evaluate line integrals, surface integrals using Green's theorem, Stokes theorem & Gauss Divergence theorem.
MEC 401.2	Use the concepts of Complex Integration for evaluating integrals, computing residues & evaluate various contour integrals.
MEC 401.3	Apply the concept of Correlation, Regression and curve fitting to the engineering problems in data science.
MEC 401.4	Understand the concepts of probability and expectation for getting the spread of the data and distribution of probabilities.
MEC 401.5	Apply the concept of probability distribution to engineering problems & Testing hypothesis of small samples using sampling theory
MEC 401.6	Apply the concepts of parametric and nonparametric tests for analysing practical problems.

Course Name: MEC402 Fluid Mechanics	
MEC402.1	Study Fluid Statics and Fluid Dynamics.
MEC402.2	Acquaint with dimensional analysis of Thermal and Fluid systems.
MEC402.3	Familiarize with application of mass, momentum and energy equations in fluid flow.
MEC402.4	Study various flow measurement techniques.
MEC402.5	Familiarize with the dynamics of fluid flows and the governing non dimensional parameters.

Course Name: MEC403 Kinematics of Machinery	
MEC 403.1	To Understand and explain various components of mechanisms.
MEC 403.2	To Understand and explain various components of mechanisms.
MEC 403.3	To Draw using various methods velocity and acceleration diagrams of mechanisms.
MEC 403.4	To Construct CAM profile illustrating displacement, velocity, acceleration and jerk for the specific follower motion.
MEC 403.5	To Define and apply different Flexible connectors and Concept of Brakes
MEC 403.6	To Define different Terms used in gears and application of different Gears in power Transmission.

Course Name: MEC 404 CAD CAM	
MEC 404.1	Use techniques of computer graphics for 3 D geometric modelling and write equations for line, curves also solve problems based upon it.
MEC 404.2	Develop mathematical representation and object oriented programs for 2D and 3D transformations and apply the concept for 3 D animation.
MEC 404.3	Learning medical scan data formats and applying technique for 3- D model development.
MEC 404.4	Understand and apply the computer aided manufacturing technique.
MEC 404.5	Understand the additive manufacturing technique and applying the concept for 3 D model development using rapid prototyping process.
MEC 404.6	Understand the concept of augmented reality and virtual reality to explore the cost effective methods for manufacturing

Course Name: MEC405 Industrial Electronics	
MEC405.1	Illustrate construction, working principles and applications of power electronic switches
MEC405.2	Identity rectifiers and inverters for dc and ac motor speed control
MEC405.3	Develop circuits using OPAMP and timer IC555
MEC405.4	Identify digital circuits for industrial applications

MEC405.5	Demonstrate the knowledge of basic functioning of microcontrollers
MEC405.6	Analyse speed-torque characteristics of electrical machines for speed control

Course Name: MEL401 Industrial Electronics	
MEL401.1	Demonstrate characteristics of various electrical and electronics components
MEL401.2	Develop simple applications built around these component
MEL401.3	Identify use of different basic gates
MEL401.4	Identify and use digital circuits for industrial applications
MEL401.5	Built and demonstrate basic parameter measurement using microcontroller
MEL401.6	Test and Analyse speed-torque characteristics of electrical machines for speed control

Course Name: MEL 403 Python Programming	
MEL403.1	Demonstrate understand of basic concepts of python programming.
MEL403.2	Identify, install and utilize python packages
MEL403.3	Develop and execute python programs for specific applications.
MEL403.4	Develop and build python program to solve real-world engineering problems
MEL403.5	Prepare a report on case studies selected.

Course Name: MESBL401 Skill based Lab: CNC and 3-D Printing	
MESBL 401.1	Develop and execute part programming for any given specific operation.
MESBL 401.2	Build any given object using various CNC operations.
MESBL 401.3	Demonstrate CAM Tool path and prepare NC- G code.
MESBL 401.4	Develop 3D model using available biomedical data
MESBL 401.5	Build any given real life object using 3D printing process.
MESBL 401.6	Convert 2D images into 3D model.

Course outcomes: Semester V

Course Name: MEC501: Mechanical Measurement and Control	
MEC 501.1	To study the principles of precision measuring instruments & their significance.
MEC 501.2	To familiarize with the handling & use of precision measuring instruments/ equipment's.
MEC 501.3	To impart knowledge of architecture of the measurement system.
MEC 501.4	To deliver working principle of mechanical measurement system.
MEC 501.5	To study concept of mathematical modelling of the control system.
MEC 501.6	To acquaint with control system under different time domain.

Course Name: MEC502 Thermal Engineering	
MEC 502.1	Analyse the three modes of heat transfer in engineering application.
MEC 502.2	Develop mathematical models for different modes of heat transfer.
MEC 502.3	Analyse performance parameters of different types of heat exchangers.
MEC 502.4	Identify and analyse the Transient heat Transfer in engineering applications.
MEC 502.5	Explain construction and working of different components of internal combustion engines.
MEC 502.6	Evaluate engine performance and emission characteristics.

Course Name: MEC503 Dynamics of Machinery	
MEC503.1	To demonstrate working Principles of different types of governors and Gyroscopic effects on the mechanical systems
MEC503.2	To illustrate basic of static and dynamic forces
MEC503.3	To determine natural frequency of element/system
MEC503.4	To determine vibration response of mechanical elements / systems

MEC503.5	To design vibration isolation system for a specific application
MEC503.6	To demonstrate basic concepts of balancing of forces and couples

Course Name: MEC504 Finite Element Analysis	
MEC 504.1	Solve differential equations using weighted residual methods.
MEC 504.2	Develop the finite element equations to model engineering problems governed by second order differential equations.
MEC 504.3	Apply the basic finite element formulation techniques to solve engineering problems by using one dimensional elements.
MEC 504.4	Apply the basic finite element formulation techniques to solve engineering problems by using two dimensional elements.
MEC 504.5	Apply the basic finite element formulation techniques to find natural frequency of single degree of vibration system.
MEC 504.6	Use commercial FEA software, to solve problems related to mechanical engineering.

Course Name: Computational Method	
MEDLO5013.1	To understand and develop mathematical models of physical systems
MEDLO5013.2	To identify an appropriate mathematical formulation to linear algebraic equations
MEDLO5013.3	To build an appropriate mathematical formulation to non-linear algebraic equations
MEDLO5013.4	To evaluate and interpret the data regression, curve fitting and statistics
MEDLO5013.5	To apply the numerical techniques and numerical schemes
MEDLO5013.6	To Formulate the concept of numerical methods in realistic applications

Course Name: Design of Experiment	
MEDLO5012.1	To obtain clear understanding of use of statistics in experimentation
MEDLO5012.2	To obtain clear understanding of scheme of experimentation and its effect on accuracy of experimentation
MEDLO5012.3	To obtain knowledge of how to analyze results from such investigations to obtain conclusions
MEDLO5012.4	To become familiar with methodologies that can be used in conjunction with experimental designs for robustness and optimization
MEDLO5012.5	To become familiar with Statistical distributions and Analysis
MEDLO5012.6	To apply DoE Concepts in Mechanical Engineering application

Course Name: MEL501 Thermal Engineering	
MEL 501.1	Estimate thermal conductivity of engineering materials.
MEL 501.2	Evaluate performance parameters of extended surfaces.
MEL 501.3	Analyse heat transfer parameters in various engineering applications.
MEL 501.4	Analyse engine performance and emission parameters at different operating conditions.

Course Name: MEL502 Dynamics of Machinery Lab	
MEL502.1	To plot and analyze governor characteristics
MEL502.2	To analyze gyroscopic effect on laboratory model
MEL502.3	To estimate natural frequency of mechanical systems
MEL502.4	To analyze vibration response of mechanical systems
MEL502.5	To determine damping coefficient of a system
MEL502.6	To balance rotating mass

Course Name: MEL503 Finite Element Analysis	
MEL 503.1	Select appropriate element for given problem
MEL 503.2	Select suitable meshing and perform convergence test
MEL 503.3	Select appropriate solver for given problem
MEL 503.4	Interpret the result
MEL 503.5	Apply basic aspects of FEA to solve engineering problems
MEL 503.6	Validate FEA solution

Course Name: MEPBL501 Mini Project - 2A	
MEPBL501.1	Identify problems based on societal /research needs and apply Knowledge and skill to solve societal problems in a group.
MEPBL501.2	Develop interpersonal skills to work as member of a group or leader.
MEPBL501.3	Draw the proper inferences from available results through theoretical/ experimental/simulations.
MEPBL501.4	Analyse the impact of solutions in societal and environmental context for sustainable development.
MEPBL501.5	Use standard norms of engineering practices and Excel in written and oral communication.
MEPBL501.6	Demonstrate capabilities of self-learning in a group, which leads to lifelong learning and project management principles during project work.

Course outcomes: Semester VI

Course Name: Metrology and Quality Engineering	
MEC601.1	To demonstrate inspection methods and different gauges
MEC601.2	To illustrate working principle of measuring instruments and calibration methodology
MEC601.3	To illustrate basic concepts and statistical methods in quality control
MEC602.4	To demonstrate characteristics of screw threads, gear profile, and tool profile
MEC602.5	To illustrate the different sampling techniques in quality control
MEC602.6	To illustrate different nondestructive techniques used for quality evaluation

Course Name: MEC 602 Machine Design I	
MEC 602.1	Student should be able to understand various design consideration.
MEC 602.2	Student Should be able to study and apply principles of machine design
MEC 602.3	Student Should be able to design machine elements on the basis of strength, and economic criteria
MEC 602.4	Student Should be able to check (Validate results) design with the help of design software
MEC 602.5	Student Should be able to prepare production drawing
MEC 602.6	Student Should be able to use design data books and various standard codes of practices

Course Name: MEC603 Finite Element Analysis	
MEC 603.1	Solve differential equations using weighted residual methods.
MEC 603.2	Develop the finite element equations to model engineering problems governed by second order differential equations.
MEC 603.3	Apply the basic finite element formulation techniques to solve engineering problems by using one dimensional elements.

MEC 603.4	Apply the basic finite element formulation techniques to solve engineering problems by using two dimensional elements.
MEC 603.5	Apply the basic finite element formulation techniques to find natural frequency of single degree of vibration system.
MEC 603.6	Use commercial FEA software, to solve problems related to mechanical engineering.

Course Name: MEC604 Refrigeration and Air Conditioning	
MEC604.1	Demonstrate fundamental principles of refrigeration and air conditioning.
MEC604.2	Identify and locate various important components of the refrigeration and air conditioning system.
MEC604.3	Illustrate various refrigeration and air conditioning processes using psychometric chart
MEC604.4	Design air conditioning system using cooling load calculations.
MEC604.5	Estimate air conditioning system parameters.
MEC604.6	Demonstrate understanding of duct design concepts

Course Name: MEDLO6021 Mechatronics	
MEDLO6021.1	Identify the suitable sensor and actuator for a mechatronics system
MEDLO6021.2	Understand various electrical actuating systems
MEDLO6021.3	Understand various pneumatic and hydraulic actuating systems
MEDLO6021.4	Will able to develop circuits for industrial automation
MEDLO6021.5	Will be able to design system interfacing and DAS
MEDLO6021.6	Indigenously design and develop a mechatronic system

Course Name: MEDLO6023 Industrial Automation	
MEDLO6023.1	To demonstrate basics of industrial automation
MEDLO6023.2	To Identify and illustrate various types of automation
MEDLO6023.3	To demonstrate use of automated controls using pneumatic and hydraulic systems.
MEDLO6023.4	To Illustrate the control systems in automated system.
MEDLO6023.5	To demonstrate applicability of PLC in process industry
MEDLO6023.6	To design electro-pneumatic circuits

Course Name: MEL601 Metrology and Quality Engineering (Lab)	
MEL601.1	To measure linear and angular dimensions
MEL601.2	To measure surface roughness
MEL601.3	To measure various parameters of gear tooth profile
MEL602.4	To use optical profile projector for measurement
MEL602.5	To use various instruments for measurement of screw threads
MEL602.6	To measure flatness by Autocollimator / Interferometry method

Course Name: MEL603 Finite Element Analysis	
MEL 603.1	Select appropriate element for given problem
MEL 603.2	Select suitable meshing and perform convergence test
MEL 603.3	Select appropriate solver for given problem
MEL 603.4	Interpret the result

MEL 603.5	Apply basic aspects of FEA to solve engineering problems
MEL 603.6	Validate FEA solution

Course Name: MEL604 Heating, Ventilation, Air Conditioning and Refrigeration	
MEL604.1	Demonstrate fundamental principles of refrigeration and air conditioning
MEL604.2	Identify and locate various important components of refrigeration and air conditioning system.
MEC604.3	Represent various refrigeration and air conditioning processes using psychometric chart.
MEC604.4	Operate and maintain refrigeration system.
MEC604.5	Operate and maintain air conditioning system.
MEC604.6	Simulate VCERS

Course Name: MEL 605 Mechatronics Lab	
MEL605.1	Demonstrate implementation of interfacing sensors and actuators using microcontrollers
MEL605.2	Demonstrate of interfacing various utilities with microcontrollers
MEL605.3	Demonstrate discrete control system using PLC microcontroller
MEL605.4	Design and develop a control system for specific use
MEL605.5	Implement program to PLC system and demonstrate its application
MEL605.6	Develop pneumatic circuits for a specific system

Course outcomes: Semester VII

Course Name: MEC 701 Machine Design-II	
MEC701.1	Select appropriate gear for power transmission.
MEC701.2	Apply basic principles to design gears based on given conditions.
MEC701.3	Select appropriate bearing for given application with the help of manufacturing catalogue.
MEC701.4	Analyse different Failures in gears, cam & follower & Bearing.
MEC701.5	Design cam & follower for different applications.
MEC701.6	Able to validate design with the help of design software.

Course Name: MEC 702 CAD CAM CAE	
MEC702.1	Use techniques of computer graphics for geometric modelling and write equations for curves also solve problems based upon it.
MEC702.2	Develop mathematical representation and object oriented programs for 2D and 3D transformations.
MEC702.3	Create part programs for NC, CNC machines and its use
MEC702.4	Model and analyse real life applications using CAE tools.
MEC702.5	Understand and apply concepts of CIM.
MEC702.6	Apply rapid prototyping and tooling concepts in product design and manufacturing

Course Name: MEC 703 Production Planning and Control	
MEC 703.1	Understand the importance & activities of Production Planning & Control in Industries
MEC 703.2	Understand the importance of inventories & control functions.
MEC 703.3	Able to make various documents like purchase orders, store receipt used in Industries.
MEC 703.4	Understand importance of product & process planning and forecasting models.
MEC 703.5	Able to convert the problems into mathematical models and evaluate optimum solutions.
MEC 703.6	Understand scheduling & sequencing techniques and able to draw Gantt, CPM & PERT charts used in industries.

Course Name: MEDLO7032 Automobile Engineering	
MEC 301.1	Describe different Automotive systems
MEC 301.2	Demonstrate working principle and their requirements of different automotive systems like power train system, tyres etc
MEC 301.3	Explain the working and importance of electrical system like charging ,staring system etc
MEC 301.4	Identify different body structure and their layouts and choose appropriate layout depending on the their use analyze it from aerodynamic point of view
MEC 301.5	Demonstrate and explain requirement and classification of brakes, steering system and various term related to steering geometry
MEC 301.6	Understand and explain recent trends in automobile like ABS, ECM and working of various sensors and their construction

Course Name: MEL 701 Machine Design-II	
MEL 701.1	Design the gear drive for practical application
MEL 701.2	Design the helical gearbox for given application.
MEL 701.3	Design the CAM & Follower mechanical for given application.
MEL 701.4	Select the bearing from manufacturer's catalogue.

MEL 701.5	Design the brakes & clutch for given application.
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Course Name: MEL 702 CAD CAM CAE	
MEL702.1	Understand the computer graphics techniques and apply the concept for 3 D modelling.
ME6 702.2	Understand the concept of geometric transformation and explore the concept of image data storage and management with API interface.
MEL 702.3	Write the NC programme and trace the programme simulation through tool path moment with software interface.
MEL 702.4	Understand the rapid prototyping process and develop the model for real life application.
MEL 702.5	Apply the concept of shape optimization for geometric design improvement.

Course Name: ILO 7017 Disaster Management and Mitigation Measures	
ILO7017.1	To understand definition of disaster ,hazard and terms related to Disaster Management
ILO7017.2	Get to know natural as well as manmade disaster and their extent and possible effects on the economy.
ILO7017.3	Get to know role of various agencies linked with Disaster management including government, NGO.
ILO7017.4	Plan of national importance structures based upon the previous history.
ILO7017.5	Get acquainted with government policies, acts and various organizational structure associated with an emergency.
ILO7017.6	Get to know the simple do's and don'ts in such extreme events and act accordingly.

Course Name: MEP701 Project-I	
MEP701.1	Able to identify the conceptual problems factors and their levels in industries.

MEP701.2	Able to formulate the real life problems factors and theirs levels in the form of mathematical model.
MEP701.3	Able to plan and establish real life problems in the form of experimental setup.
MEP701.4	Able to simulate and analyse the real life problems using the mathematical model and software
MEP701.5	Able to prepare the report contents of conceptual problems factors, factor levels, academic literature, problem formulation, problem statement, factor analysis and conclusion & suggestion
MEP701.6	Able to prepare the presentation of project contents details in brief using MS-office Power point

Course outcomes: Semester VIII

Course Name: MEC 801 Design of Mechanical System	
MEC801.1	Students should be able to understand methodology and morphology in design and system concepts in design.
MEC801.2	Students should be able to design material handling systems such as hoisting mechanism of EOT crane.
MEC801.3	Students should be able to design belt and conveyors for the given application
MEC801.4	Students should be able to design engine components such as cylinder, piston, connecting rod and crankshaft from system design point of view
MEC801.5	Student should be able to design pumps for the given applications.
MEC801.6	Student should be able to prepare layout of machine gear box and select number of teeth on each gear

Course Name: MEC802 Industrial Engineering and Management	
MEC802.1	Illustrate the need for optimization of resources and its significance
MEC802.2	Develop ability in integrating knowledge of design along with other aspects of value addition in the conceptualization and manufacturing stage of various products.
MEC802.3	Manage and implement different concepts involved in method study and understanding of work content in different situations.
MEC802.4	Describe different aspects of work system design and facilities design pertinent to manufacturing industries.
MEC802.5	Develop a proper layout plan for various products and optimize the assembly line.
MEC802.6	Illustrate concepts of Agile manufacturing, Lean manufacturing and Flexible manufacturing

Course Name: MEC803 Power Engineering	
MEC 803.1	Compute heat interactions in combustion of reactive mixtures
MEC 803.2	Differentiate boilers, boiler mountings and accessories
MEC 803.3	Calculate boiler efficiency and assess boiler performance
MEC 803.4	Demonstrate working cycles of gas turbines
MEC 803.5	Draw velocity triangles of impulse/reaction turbines and calculate performance parameters/efficiency
MEC 803.6	Demonstrate basic working of pumps

Course Name: MEDLO8043 Renewable Energy Sources	
MEDLO8043.1	Illustrate, types, limitations, scenario, crises & need of Non-conventional energy sources
MEDLO8043.2	Design various system for use of Non-conventional energy sources
MEDLO8043.3	Understand the combination of energy sources use and get hybrid
MEDLO8043.4	Find exact how to use of energy sources by giving the demo like power plant visit.
MEDLO8043.5	Find out how to reduce the pollution by using Non-conventional energy sources.
MEDLO8043.6	Understand how to use waste material as energy source to reduce the cost of conventional energy sources.

Course Name: MEL 801 Design of Mechanical System	
ME L 801.1	Formulate the system design process for any mechanical system.
MEL 801.2	Design the EOT crane for any given application.
MEL 801.3	Design the belt conveyor system for real life problem.

MEL 801.4	Design the pump for given application.
MEL 801.5	Design the engine for any application.
MEL 801.6	Design the machine tool gearbox with ray diagram, structure diagram, and speed chart.

Course Name: MEL802 Power Engineering	
MEL 802.1	Differentiate boilers
MEL 802.2	Differentiate boiler mountings and accessories
MEL 802.3	Conduct a trial on impulse turbine and analyze its performance
MEL 802.4	Conduct a trail on reaction turbine and analyses its performance
MEL 802.5	Conduct a trial on Centrifugal pump and analyses its performance
MEL 802.6	Conduct a trial on Reciprocating pump and analyzes its performance

Course Name: ILO8022 Finance Management	
ILO8022.1	To understand Indian finance system and corporate finance
ILO8022.2	To take investment, finance as well as dividend decisions
ILO8022.3	To understand balance sheet, profit and loss account, cash flow statement and financial ratios of organizations.
ILO8022.4	To understand time value of money
ILO8022.5	To understand capital budgeting and sources of finance
ILO8022.6	To understand working capital management

Course Name: ILO8029 Environmental Management	
ILO8029.1	To understand and identify environment issues around the world
ILO8029.2	To understand and identify environment issues relevant to India

ILO8029.3	To study and understand the concepts of ecology
ILO8029.4	To understand role of various organization in environmental management.
ILO8029.5	To understand total quality environment management
ILO8029.6	To understand various environment related legislations

Course Name: MEP801 Project-II	
MEP802.1	Able to identify the conceptual problems factors and their levels in industries.
MEP802.2	Able to formulate the real life problems factors and theirs levels in the form of mathematical model.
MEP802.3	Able to plan and establish real life problems in the form of experimental setup.
MEP802.4	Able to simulate and analyse the real life problems using the mathematical model and software
MEP802.5	Able to prepare the report contents of conceptual problems factors, factor levels, academic literature, problem formulation, problem statement, factor analysis and conclusion & suggestion
MEP802.6	Able to prepare the presentation of project contents details in brief using MS-office Power point