Program Name	Course Code	Course Name	Course Outcomes
SE Mechanical Engineering	207002	Engineering Mathematics – III	CO1: Solve higher order linear differential equations and apply to modeling and analyzing mass spring systems. CO2: Apply Laplace transform and Fourier transform techniques to solve differential equations involved in Vibration theory, Heat transfer and related engineering applications. CO3: Apply statistical methods like correlation, regression analysis in analyzing, interpreting experimental data and probability theory in testing and quality control. CO4: Perform vector differentiation and integration, analyze the vector fields and apply to fluid flow problems. CO5: Solve various partial differential equations such as wave equation, one and two dimensional heat flow equations CO6: To get the conceptional clarity of vector differentiation and integration applied to problems in Fluid Mechanics
SE Mechanical Engineering	202041	Manufacturing Process-I	CO1: Select and analyze foundry practices like pattern making, mold making, Core making and Inspection of defects. CO2: Compare and analyze Hot and Cold Working, Rolling, Forging, Extrusion and Drawing Processes. CO3: Classify and develop different plastic molding processes, Extrusion of Plastic and Thermoforming CO4: Select and Apply different Welding and joining processes and its defects CO5: Design and Analyze different sheet metal working processes CO6: Illustrate the constructional details and Working of Centre Lathe
SE Mechanical Engineering	202042	Computer Aided Machine Drawing	CO1: Understand the importance of CAD in the light of allied technologies such as CAM, CAE, FEA, CFD, PLM. CO2: Understand the significance of parametric technology and its application in 2D sketching. CO3: Understand the significance of parametric feature-based modeling and its application in 3D machine components modeling. CO4: Ability to create 3D assemblies that represent static or dynamic Mechanical Systems CO5: Ability to ensure manufacturability and proper assembly of components and sub-assemblies. CO6: Ability to communicate between Design and Manufacturing using 2D drawings.
SE Mechanical Engineering	202043	Thermodynamics	CO1: Apply various laws of thermodynamics to various processes and real systems. CO2: Apply the concept of Entropy, Calculate heat, work and other important thermodynamic properties for various ideal gas processes. CO3: Analyze the performance of various Thermodynamic gas power cycles and gas refrigeration cycle and availability in each case. CO4: Evaluate the condition of steam and performance of vapour power cycle and vapour compression cycle. CO5: Evaluate Stoichiometric air required for combustion, performance of steam generators and natural draught requirements in boiler plants CO6: Apply Psychromertic charts and estimate various essential properties related to Psychrometry and processes
SE Mechanical	202044	Material Science	CO1: Describe the basic concepts and properties of Material. CO2: Illustrate about material fundamental and processing. CO3: Select and analyze proper metal, alloys, nonmetal and powder metallurgical component for specific requirement CO4: Evaluate the defects in crystal and its effect on crystal properties.

			CO5: Evaluate the different properties of material by studying different test CO6: Recognize how metals can be strengthened by cold-working and hot working
SE Mechanical Engineering	202051	Strength of Materials	CO1: Apply knowledge of mathematics, science for engineering applications CO2: Design and conduct experiments, as well as to analyze and interpret data CO3: Design a component to meet desired needs within realistic constraints of health and safety CO4: Identify, formulate, and solve engineering problems CO5: Practice professional and ethical responsibility CO6: Use the techniques and practical skills necessary for engineering practice
SE Mechanical Engineering	202055	Audit Course I: Value Education	CO1: Promote self-reflection and critical inquiry that foster critical thinking of one's value and the values of others. CO2: Understood the salient values of life like honesty, ethics, teamwork, unity CO3: Practice respect for human rights and democratic principles. CO4: Familiarized with various living and non-living organisms and their interaction with environment. CO5: Ability to increase awareness among students about environment and create attitude towards sustainable lifestyle. CO6: Ability to educate and make the young generation students aware of their social responsibilities
SE Mechanical Engineering	202055 A	Audit Course I: Innovations in Engineering Field/ Agriculture	CO1: Understand what is thinking, its tools and process and its application to innovation CO2: Practice application of innovation in engineering CO3: Understand important terms like national productivity, sustainable development and inclusive growth CO4: Throw a light on developing technologies in agriculture CO5: Learn Interdisciplinary Engineering applications in Agriculture CO6: Update with innovations and technological advancements in respective fields of engineering.
SE Mechanical Engineering	202055 B	Audit Course I : Road Safety	CO1: Generate awareness about number of people dyeing every year in road accidents, traffic rules and characteristics of accident. CO2: Gain information and knowledge about people responsible for accidents and their duties CO3: Understand the importance of multidisciplinary approach to planning for traffic safety and rehabilitation CO4: Participation in events based on the topic under study CO5: Understand roles and responsibilities in ensuring road safety CO6: Acquire knowledge and understanding of the road environment
SE Mechanical Engineering	202045	Fluid Mechanics	CO1: Determine various properties of fluid in solving the problems in fluids and understand the laws of fluid statics and concepts of buoyancy. CO2: Identify the various types of fluid flow and their characteristics. CO3: Apply Bernoulli's equation and its application for solving fluid flow problems. CO4: Estimate the various characteristics of Laminar and Turbulent flow. CO5: Apply Dimensional Analysis method to solve the fluid problems and determination of Losses through Pipe flow. CO6: Determine boundary layer formation over an external surface.

SE Mechanical Engineering	202047	Soft Skills	CO1: Ability to develop speaking, listening and presentation skills. CO2: Ability to develop writing skills CO3: Learning Corporate & Business Etiquettes. CO4: Ability to work effectively as an individual and as a member/leader in a team and also manage time & stress. CO5: Become more effective individual through goal/target setting, self-motivation and practicing creative thinking. CO6: Develop right-attitudinal and behavioral change
SE Mechanical Engineering	202048	Theory of Machines – I	CO1: Identify mechanisms in real life applications. CO2: Perform kinematic analysis of simple mechanisms. CO3: Perform static and dynamic force analysis of slider crank mechanism CO4: Determine moment of inertia of rigid bodies experimentally CO5: Analyze velocity and acceleration of mechanisms by vector and graphical methods. CO6: Understand the concept of friction and its application
SE Mechanical Engineering	202049	Engineering Metallurgy	CO1: Describe how metals and alloys formed and how the properties change due to microstructure CO2: Apply core concepts in Engineering Metallurgy to solve engineering problems. CO3: Conduct experiments, as well as to analyze and interpret data CO4: Select materials for design and construction CO5: Apply the skills and techniques necessary for modern materials engineering practice CO6: Recognize how metals can be strengthened by alloying, cold-working, and heat treatment
SE Mechanical Engineering	202050	Applied Thermodynamics	CO1: Define basics of engine terminology, air standard, fuel air and actual cycles. CO2: IDENTIFY factors affecting the combustion performance of SI CO3: IDENTIFY factors affecting the combustion performance of CI engines CO4: DETERMINE performance parameters of IC Engines and emission control. CO5: EXPLAIN working of various IC Engine systems and use of alternative fuels. CO6: Measure performance of single and multistage reciprocating compressors and DISCUSS rotary positive displacement compressors
SE Mechanical Engineering	203152	Electrical and Electronics Engineering	CO1: Ability to be conversant with basics of Electrical and Electronic controls CO2: Develop the capability to identify and select suitable DC motor / induction motor / special purpose motor and its speed control method for given industrial application. CO3: Program Arduino IDE using conditional statements CO4: Interfacing sensors with Arduino IDE CO5: Proficiently apply advanced technical knowledge of electrical and electronic engineering for mechanical engineering. CO6: Ability to provide development in electrical/electronic engineering.
SE Mechanical Engineering	203153	Machine Shop - I	CO1: Ability to set the manufacturing set–up appropriately CO2: Ability to operate Milling machine CO3: Ability to select appropriate process parameter for obtaining desired characteristic on work piece. CO4: Ability to understand the operational and safety problems CO5: Ability to operate plastic molding machine, Press CO6: Ability to operate grinding machine
TE Mechanical Engineering	302041	Design of Machine Elements – I	CO1: Identify and understand failure modes for mechanical elements and design of machine elements based on strength. CO2: Design Shafts, Keys and Coupling for industrial applications. CO3: Design and analyze machine elements subjected to fluctuating loads CO4: Design and develop Power Screws for various applications CO5: Design fasteners and welded joints subjected to different loading conditions. CO6: Design various Springs for strength and stiffness.

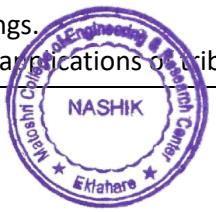
TE Mechanical Engineering	302042	HEAT TRANSFER	CO1: Analyze the various modes of heat transfer and implement the basic heat conduction equations for steady one dimensional thermal system. CO2: Implement the general heat conduction equation to thermal systems with and without internal heat generation and transient heat conduction. CO3: Understand thermal insulation concepts and lumped system analysis CO4: Analyze the heat transfer rate in natural and forced convection and evaluate through experimentation investigation CO5: Interpret heat transfer by radiation between objects with simple geometries. CO6: Analyze the heat transfer equipment and investigate the performance.
TE Mechanical Engineering	302043	Theory of Machine – II	CO1: Apply fundamentals of gear theory which will be the prerequisite for gear design. CO2: Performs force analysis of Spur, Helical, Bevel, Worm and Worm gear. CO3: Analyzes speed and torque in epi-cyclic gear trains which will be the prerequisite for gear box design. CO4: Design cam profile for given follower motions and understand cam Jump phenomenon, advance cam curves. CO5: Analyze & synthesize a four bar mechanism with analytical and graphical methods. CO6: Analyze the gyroscopic couple or effect for stabilization of Ship, Aero plane and Four wheeler vehicle. CO7: Select appropriate drive for given application (stepped / step-less).
TE Mechanical Engineering	302044	Turbo Machines	CO1: Apply thermodynamics and kinematics principles to turbo machines. CO2: Analyze the performance of turbo machines. CO3: Classify & Select turbo machine for given application CO4: Evaluate & Predict performance of turbo machine using model analysis. CO5: Understand the working principles of turbo machines and apply it to various types of machines CO6: Analyze performance parameters of compressors
TE Mechanical Engineering	302045	Metrology And Quality Control	CO1: Describe the methods of measurement, selection of measuring instruments. CO2: Explain tolerance, limits of size, fits, geometric and position tolerances and gauge design CO3: Select & apply Quality Control Techniques/ Statistical Tools appropriately in industrial applications CO4: Develop an ability of problem solving and decision making by identifying and analyzing the cause for variation and recommend suitable corrective actions for quality improvement. CO5: Ability to analyze and interpret data for quantitative and qualitative measurement. CO6: Apply TQM tools for industrial applications
TE Mechanical Engineering	302046	Skill Development	CO1: Understand details of various part of machines and machine drawings CO2: Application of different types of tools used to assemble & disassemble of machines CO3: Utilize their skill for getting concept of component used in machineries CO4: Understand the dimensional feature of various machine elements for assembly & disassembly CO5: Function effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships CO6: Ability to demonstrate engineering problems related to maintenance of Industrial equipment
TE Mechanical Engineering	302047	Numerical Methods and Optimization	CO1: Select & Apply appropriate Numerical Methods to solve complex mechanical engineering problems. CO2: Formulate algorithms and programming. CO3: Apply Mathematical Solver CO4: Generate Solutions for real life problem using optimization techniques. CO5: Analyze the research problem CO6: Develop logical skills to solve Problems.

TE Mechanical Engineering	302048	Design of Machine Elements – II	CO1: Understand and Apply principles of gear design to spur gears and industrial spur gear boxes. CO2: Ability to become proficient in Design of Helical and Bevel Gear boxes CO3: Ability to develop capability to analyze Rolling contact bearing and its selection from manufacturer's Catalogue CO4: Ability to analyze & design worm gear box for various industrial applications. CO5: Ability to design belt drives and selection of belt, rope and chain drives. CO6: Ability to analyze & design of Sliding contact bearing in industrial applications.
TE Mechanical Engineering	302049	Refrigeration and Air Conditioning	CO1: Illustrate the fundamental principles and applications of refrigeration and air conditioning system CO2: Obtain cooling capacity and coefficient of performance by conducting test on vapour compression refrigeration systems CO3: Calculate cooling load for air conditioning systems for domestic and industrial applications CO4: Operate and analyze the refrigeration and air conditioning systems. CO5: Define the properties, applications and environmental issues of different refrigerants CO6: Understand various equipment-operating principles, operating and safety controls employed in refrigeration air conditioning systems
TE Mechanical Engineering	302050	Mechatronics	CO1: Understand mechatronics and its applications, sensors and actuators and to Study their classification. CO2: Identify key elements of mechatronics system and its representation in terms of block diagram CO3: Understand Interfacing of Sensors using appropriate DAQ micro-controller. Apply the concept of signal processing and use of interfacing systems such as ADC, DAC, and digital I/O. CO4: Development of PLC ladder programming and implementation of real-life system CO5: Understand Time and Frequency domain analysis of system model (for control application). CO6: Apply PID control implementation on real time systems.
TE Mechanical Engineering	302051	MANUFATCURING PROCESS – II	CO1: Ability to analyze and understand the metal cutting phenomena. CO2: Ability to select process parameter and tools for obtaining desired machining characteristic CO3: Ability to understand principles of manufacturing processes. CO4: Able to figure out application of modernization in machining CO5: Apply knowledge of Jigs and Fixtures so as to utilize machine capability for variety of operations. CO6: Understand the CNC technology and prepare CNC program
TE Mechanical Engineering	302052	MACHINE SHOP – II	CO1: Apply the knowledge of various machines tools. CO2: Apply knowledge of Jigs and Fixtures for industrial components CO3: Ability to apply operational safety measures on shop floor CO4: Ability to operate lathe machine CO5: Ability to operate Milling and Drilling machine CO6: Ability to perform finishing operations on grinding machine
TE Mechanical Engineering	302053	SEMINAR	CO1: Establish motivation for any topic of interest and develop a thought process for technical presentation. CO2: Organize a detailed literature survey and build a document with respect to technical publications. CO3: Comprehension of proof-of-concept and related data. CO4: Effective presentation and improve soft skills CO5: Make use of new and recent technology (e.g. Latex) for creating technical reports CO6: Ability demonstrate problem-solving skills and apply theoretical knowledge

TE Mechanical Engineering	302054	Audit Course II :- Fire & Safety Technology	CO1: Create and sustain a community of learning in which students acquire knowledge in fire, safety and hazard management CO2: Learn to apply fire and safety rules for ethical, human life & property safety issues. CO3: Ability to pursue research and development in fire safety engineering, hazard management and disseminate its findings. CO4: Ability to meet the challenges of fire accidents in society CO5: Ability to help in building national capabilities in fire safety engineering, disaster management, hazard management, industrial safety education through practical training to ensure a fire safe nation. CO6: Ability to demonstrate fire and safety rules to society.
TE Mechanical Engineering	302054	Audit Course II - Entrepreneurs	CO1: Identify entrepreneurship opportunity CO2: Develop winning business plans and projects CO3: Know the parameters to assess opportunities and constraints for new business ideas CO4: Understand the systematic process to select and screen a business idea CO5: Design strategies for successful implementation of ideas CO6: Ability to write a business plan
TE Mechanical Engineering	302054	Audit Course II - Lean Management	CO1: Ability to practice Lean Management at the workplace CO2: Ability to do contribute in Continuous Improvement program of the Organization CO3: Understand the need for Lean management System CO4: Apply appropriate approaches to project using Lean tools and techniques CO5: Understand the working concept of lean principles and implementation. CO6: Ability to identify waste in the production process.
TE Mechanical Engineering	302054	Audit Course II - Smart Manufacturing	CO1: Comfortable with terminology and practices in Smart Manufacturing CO2: Able to face the challenges in Industry & also contribute towards advancement. CO3: Active part of Industry 4.0 (Fourth Industrial Revolution) CO4: Understand and apply the role of IT in manufacturing. CO5: Ability to interface manufacturing processes, manufacturing systems, systems engineering, IT, Networks and basic shop floor communications. CO6: Apply flexibility in physical processes to address a dynamic and global market
BE Mechanical Engineering	402041	Hydraulics and Pneumatics	CO1: Demonstrate principles & applications of various components used for hydraulic & pneumatic systems. CO2: Analyze industrial hydraulic & Pneumatic circuits. CO3: Evaluate the performance of fluid power components. CO4: Justify system requirements & Design hydraulic and pneumatic system for industrial applications CO5: Understand working principle of components used in hydraulic & pneumatic systems CO6: Develop and apply knowledge to various applications
BE Mechanical Engineering	402042	CAD CAM and Automation	CO1: Apply homogeneous transformation matrix for geometrical transformations of 2D/3D CAD entities. CO2: Model mathematically analytical and synthetic curves, surfaces and differentiate between Solid Representation Methods in part modelling. CO3: Analyze and Evaluate the solution of structural problems using FEA CO4: Develop the CNC part program for Turning / Milling and generate tool path using CAM software. CO5: Demonstrate understanding of various advanced manufacturing methods- Rapid Prototyping (RP) processes. CO6: Understand the robotics and automation systems and their applications in manufacturing industries.

BE Mechanical Engineering	402043	Dynamics of Machinery	CO1: Determine natural frequencies for single DOF undamped & damped free vibratory systems CO2: Determine response to forced vibrations due to harmonic excitation, base excitation and excitation due to unbalance forces. CO3: Estimate natural frequencies, mode shapes for 2 DOF undamped free longitudinal and torsional vibratory systems. CO4: Apply static and dynamic balancing technique for single cylinder, multi cylinder inline and radial engines. CO5: Describe vibration measuring instruments for industrial / real life applications along with suitable method for vibration control. CO6: Explain noise, its measurement & noise reduction techniques for industry and day to day life problems.
BE Mechanical Engineering	402044 A	Elective – I Finite Element Analysis	CO1: Understand the different terminologies, approaches and analysis used in Finite Element Analysis (FEA) to solve mechanical engineering problems. CO2: Derive and use 1-D and 2-D element stiffness matrices and load vectors from various methods to solve for displacements and stresses of structural problems i.e. spring, bar, truss, beam and Plane Stress/Strain problems. CO3: Demonstrate the concept of isoperimetric Elements and Numerical Integration in Finite Element Analysis (FEA). CO4: Explain the Finite Element formulation for One dimensional steady-state heat transfer problem and Dynamic Analysis problem. CO5: Use commercial finite element analysis software to solve complex problems in solid mechanics and heat transfer. CO6: Explain the inner workings of a finite element code for linear stress, displacement, temperature and modal analysis.
BE Mechanical Engineering	402044 B	Elective – I Computational Fluid Dynamics	CO1: Analyze and model fluid flow and heat transfer problems. CO2: Generate high quality grids and interpret the correctness of numerical results with physics. CO3: Conceptualize the programming skills. CO4: Use a CFD tool effectively for practical problems and research. CO5: Ability to formulate and solve computational problems arising in the flow of fluids. CO6: Ability to assess the accuracy of a numerical solutions by comparison to known solutions of simple test problems and by mesh refinement studies
BE Mechanical Engineering	402044 C	Elective – I Heating, Ventilation, Air Conditioning and	CO1: Determine the performance parameters of trans-critical & ejector refrigeration systems CO2: Estimate thermal performance of compressor, evaporator, condenser and cooling tower. CO3: Describe refrigerant piping design, capacity & safety controls and balancing of vapour compressor system. CO4: Explain importance of indoor and outdoor design conditions, IAQ, ventilation and air distribution system. CO5: Estimate heat transmission through building walls using CLTD and decrement factor &time lag methods with energy-efficient and cost-effective measures for building envelope. CO6: Explain working of types of desiccant, evaporative, thermal storage, radiant cooling, clean room and heat pump air-conditioning systems.
BE Mechanical Engineering	402045 A	Elective – II Automobile Engineering	CO1: Compare and select the proper automotive system for the vehicle. CO2: Analyze the performance of the vehicle. CO3: Diagnose the faults of automobile vehicles. CO4: Apply the knowledge of EVs, HEVs and solar vehicles CO5: Develop a strong base for understanding future developments in the automobile industry. CO6: Understand the environmental implications of automobile emissions

BE Mechanical Engineering	402045 B	Elective – II Operation Research	CO1: Apply LPP and Decision Theory to solve the problems CO2: Apply the concept of transportation models to optimize available resources. CO3: Decide optimal strategies in conflicting situations. CO4: Implement the project management techniques. CO5: Minimize the process time CO6: Optimize multi stage decision making problems
BE Mechanical Engineering	402045 C	Elective – II Energy Audit and Management	CO1: Understand need of renewable energy, energy consumption scenario of India and world and relate between energy and environment. CO2: Carry out energy audit using different instruments and prepare energy audit report. CO3: Apply financial analysis techniques like simple payback period, time value of money, net present value and internal rate of return to compare energy projects. CO4: Evaluate energy conservation opportunities in Thermal Utilities. CO5: Generalize electrical load management and accurately predict the electricity bill required for the installation. CO6: Categorize cogeneration processes and various heat recovery devices to develop clean development mechanism.
BE Mechanical Engineering	402046	Project – I	CO1: Knowledge Application & Independent Learning: Ability to apply multidisciplinary knowledge CO2: Problem Solving Skills: Ability to design, analyze and solve engineering problem by doing project CO3: Optimization : Ability to optimize method and process with help of project CO4: Collaboration: Promotes independent logical thinking and capability to work in team. CO5: Communication: Ability to demonstrate effective verbal and written communication skills CO6: Ethics: Provide solution to industrial/agricultural problems considering social, safety, environmental, ethical and legal issues
BE Mechanical Engineering	402047	Energy Engineering	CO1: Describe the power generation scenario and Identify the components of thermal power plant and illustrate the Rankine cycle, Cogeneration cycle CO2: Analyze the steam condensers, recognize the an environmental impacts of thermal power plant and method to control the same CO3: Recognize the layout, component details of hydroelectric power plant and nuclear power plant. CO4: Describe the details of diesel power plant, gas power plant and analyze gas turbine power cycle. CO5: Explain the fundaments of non-conventional power plants CO6: Describe the different power plant instruments and analyze economics of power generation.
BE Mechanical Engineering	402048	Mechanical System Design	CO1: Understand the difference between component level design and system level design. CO2: Design mechanical systems like machine tool gear boxes, material handling systems, etc. for the specifications stated/formulated CO3: Ability to apply the statistical considerations in design and analyze the defects and failure modes in components. CO4: Recognize thick & thin cylinders, categorize different pressure vessels and design them using codes and Standards CO5: Identify materials for IC engine components and apply design procedure to design IC engine components. CO6: Learn optimum design principles and apply it to mechanical components.
BE Mechanic	402049 A	402049 A Elective – III	CO1: Understand the importance of Tribology in Industry. CO2: Understand the basic concepts of Friction, Wear, Lubrications and their measurements. CO3: Understand the performance of different types of bearings. CO4: Apply the principles of surface engineering for different applications of tribology.



			CO5: Understand Rheodynamics (Static) Lubrication characteristics, materials in extreme environments CO6: Understand and apply the basic design calculations of hydrodynamic lubrication problems, including thrust bearings and journal bearings
BE Mechanical Engineering	402049 B	Elective – III Industrial Engineering	CO1: Analyze and implement different concepts involved in method study to improve productivity CO2: Design and Develop different aspects of work system and facilities CO3: Undertake project work based on modeling & simulation area. CO4: Apply the Industrial Engineering concept CO5: Understand and Apply Industrial safety standards, financial management practices. CO6: An ability to analyze, interpret data and use engineering judgment to draw conclusions
BE Mechanical Engineering	402049 C	Elective – III Robotics	CO1: Identify different type of robot configuration with relevant terminology. CO2: Select suitable sensors, actuators and drives for robotic systems. CO3: Understand kinematics in robotic systems. CO4: Design robot with desired motion with suitable trajectory planning. CO5: Select appropriate robot programming for given application. CO6: Understand need of IoT, machine learning, simulation in robotics
BE Mechanical Engineering	402050 A	Elective – IV Advanced Manufacturing	CO1: Classify and analyze special forming processes and advanced joining processes CO2: Select appropriate micro and nano fabrication techniques for engineering applications CO3: Analyze effects of chemical composition, composition variation, crystal structure. CO4: Understand and analyze the basic mechanisms of hybrid non-conventional machining techniques CO5: Understand and apply various additive manufacturing technology for product development CO6: Illustrate various non-traditional machining techniques
BE Mechanical Engineering	402050 B	Elective – IV Solar and Wind Energy	CO1: Design of solar food drier for domestic purpose referring existing system CO2: Design of parabolic dish solar cooker for domestic purpose referring existing system CO3: Design of solar photovoltaic system for domestic purpose referring existing system CO4: Design miniature wind mill for domestic purpose referring existing system CO5: Understand of renewable and non-renewable sources of energy CO6: Gain knowledge about working principle of various solar energy systems
BE Mechanical Engineering	402050 B	Elective – IV Product Design and Development	CO1: Ability to employ engineering, scientific, and mathematical principles CO2: Execute a design from concept to finished product CO3: Ability to work in a team to successfully complete a product design. CO4: Ability to identify the customer needs, selection of processes and materials. CO5: Provide solution to problems considering social, safety, environmental, ethical and legal issues CO6: Illustrate various approaches and techniques for designing and developing products
BE Mechanical Engineering	402051	Project-II	CO1: Knowledge Application & Independent Learning: Ability to apply multidisciplinary knowledge CO2: Problem Solving Skills: Ability to design, analyze and solve engineering problem by doing project CO3: Optimization : Ability to optimize method and process with help of project CO4: Collaboration: Promotes independent logical thinking and capability to work in team. CO5: Communication: Ability to demonstrate effective verbal and written communication skills CO6: Ethics: Provide solution to industrial/agricultural problems considering social, safety, environmental, ethical and legal issues.