

Subject Name	Description
Automobile Engineering	<ul style="list-style-type: none"> <li>• deliver basic knowledge of different components of automobiles</li> <li>• prepare the students to critically evaluate the challenges and identify the role of electronics and software systems in automobile</li> <li>• taught basic automotive systems, underlying principles of construction and working, limitations of the conventional systems, the needs for electronic controls to improve the performance, safety and meet regulatory requirements</li> </ul>
Mechanical Measurement and Control	<ul style="list-style-type: none"> <li>• educate students on different measurement systems and on common types of errors</li> <li>• introduce different types of sensors, transducers and strain gauges used for measurement</li> <li>• give knowledge about thermocouples, thermometers and flow meters used for measurements introduce measuring equipments used for linear and angular measurements</li> </ul>
Operation Research	<ul style="list-style-type: none"> <li>• formulate mathematical models and to understand solution methods for real life optimal decision problems</li> <li>• emphasis on basic study of linear programming problem, Integer programming problem, Transportation problem</li> <li>• give insight about two person zero sum games with economic applications and project management techniques using PERT and CPM</li> </ul>
Mechanical Measurement and Control Lab	<ul style="list-style-type: none"> <li>• basic understanding of measurements and metrology: concepts, application, advantage and future aspects</li> <li>• knowledge on linear and angular measurements and check different characteristics of measurements</li> <li>• insight on Temperature measurements and check different characteristics of measurements and also do calibration</li> </ul>
Automobile Engineering Lab	<ul style="list-style-type: none"> <li>• familiarize the students with the fundamentals of Automobile Components</li> <li>• provide knowledge about Automotive Engine and Chassis components</li> <li>• give knowledge about application of electrical and electronics in automobile engineering</li> </ul>
Project-I	<ul style="list-style-type: none"> <li>• work integrated learning experience in which students's knowledge and skills will be applied and assessed in a real or simulated workplace context and where feedback from teachers and/ or students is integral to their experience</li> </ul>
Industrial Training-II	<ul style="list-style-type: none"> <li>• expose students to the 'real' working environment and get acquainted with the organization structure, business operations and administrative functions</li> <li>• have hands-on experience in the students' related field so that they can relate and reinforce what has been taught at the university</li> <li>• promote cooperation and to develop synergetic collaboration between industry and the university in promoting a knowledgeable society</li> </ul>
Renewable Energy	<ul style="list-style-type: none"> <li>• introduce the primary renewable energy sources and to study the</li> </ul>

Resources (Elective-III)	<p>environmental issues associated with fossil fuel energy</p> <ul style="list-style-type: none"> <li>• develop ability for designing renewable/hybrid energy systems that meet specific energy demands, are economically feasible and have a minimal impact on the environment</li> <li>• educate about how to utilize local energy sources (renewable and non-renewable) to achieve the sustainable energy systems</li> </ul>
Machine Tool Design (Elective-III)	<ul style="list-style-type: none"> <li>• explore various design aspects of machine tools elements like transmissions, structures, materials, kinematics, dynamics and construction of machine tools, etc</li> </ul>
Non Conventional Manufacturing	<ul style="list-style-type: none"> <li>• basic understanding of various non conventional manufacturing processes and their applications</li> </ul>
Metal Forming (Elective-III)	<ul style="list-style-type: none"> <li>• introduce the material behavior and deformation criteria as happens in all metal forming processes, elementary theory of plasticity</li> <li>• apply mathematical concepts to solve problems related to an industrial/technical environment</li> <li>• analyze different metal forming processes such as rolling, wire and strip drawing, extrusion, forging, and High Energy Rate Forming process</li> </ul>
Steel Quality : Role of Secondary Refining & Continuous Casting (Elective-IV)	<ul style="list-style-type: none"> <li>• Quality of steel plays an important role in imparting the specific application requirements to the product. Cleanliness as well as absence of defects are two broad facets of the quality of a steel product. Aim of this course is to give a brief introduction to the importance of secondary refining and continuous casting in achieving the desirable cleanliness and surface quality of cast and hot rolled steels</li> </ul>
Mechatronics (Elective-IV)	<ul style="list-style-type: none"> <li>• impart interdisciplinary knowledge to study modern products like household appliances, digital cameras, mobiles etc., which falls under the mechatronics domain</li> <li>• make a bridge between mechanical, electronics, instrumentation, computer and controls field</li> </ul>
Entrepreneurship Development	<ul style="list-style-type: none"> <li>• provide a working knowledge of the principles of entrepreneurship to analysis and problem solving</li> <li>• give understanding on strategy for growth and manage the implications of growth</li> </ul>
Project-II	<ul style="list-style-type: none"> <li>• work integrated learning experience in which student's knowledge and skills will be applied and assessed in a real or simulated workplace context and where feedback from teachers and/ or students is integral to their experience.</li> </ul>
Seminar-II	<ul style="list-style-type: none"> <li>• To expose students to the 'real' working environment and get acquainted with the organization structure, business operations and administrative functions.</li> <li>• To set the stage for future recruitment by potential employers.</li> </ul>
General Fitness and Professional Aptitude	<ul style="list-style-type: none"> <li>• It provides a diverse array of physical activity instruction for students. All students are encouraged to try new activities and to begin or continue a lifetime commitment to active living.</li> <li>• Activity instruction is provided in over 25 different activities</li> </ul>

	<p>spanning from traditional fitness activities such as aerobics, weight training, and yoga to an array of sports such as basketball, tennis and badminton, to a variety of activities such as mountaineering as well as a variety of dance courses.</p> <ul style="list-style-type: none"> <li>• The goals of these classes are to develop in each student a fundamental respect for the role of physical activity in living, including the assessment of physical condition and the development of personally designed, safe, effective and functional fitness programs with attention to lifetime activities.</li> <li>• To expose students to a diversity of physical activities and experiences in a manner which enhances understanding of their educational, social, spiritual, ethical and moral relevance. The program provides opportunities for all participants to develop and apply a knowledge base regarding physical activity and psychomotor and behavioral skills, which encourages the development of lifelong health and wellness.</li> </ul>
Maintenance Engineering	<ul style="list-style-type: none"> <li>• examines the methods for developing a modern maintenance programme for industrial plants</li> <li>• provides a comprehensive understanding of theory and practice of reliability centered maintenance and total productive maintenance strategies to achieve high plant availability, optimize on product quality, and address safety and environmental issues</li> <li>• consider shutdown and turnaround within maintenance of complex systems</li> </ul>
Advanced Manufacturing Technology (Elective-V)	<ul style="list-style-type: none"> <li>• expose the students to the special processing method and thread manufacturing</li> <li>• impart the knowledge on plastics, composites and their processing</li> <li>• understand theory of powder metallurgy, design considerations and applications</li> </ul>
Computational Fluid Dynamics (Elective-V)	<ul style="list-style-type: none"> <li>• expose the students to the governing equations for fluid flow and different turbulence models used to solve the flow equation for turbulent flow</li> <li>• introduce the numerical methods used to solve the partial differential equations</li> </ul>
Human Resource Management (Elective-V)	<ul style="list-style-type: none"> <li>• learn the basic concepts and frameworks of human resource management (HRM), and understand the role that HRM has to play in effective business administration</li> <li>• Make students to think about how HRM should be used as a tool to execute strategies</li> <li>• discuss how these elements relate to the various parts of HRM, such as HR policy, organizational structure, HR systems (recruitment, placement, evaluation, compensation and development) and organizational culture</li> <li>• Provide a look at numerous problems of HRM and their causes, and what action plans should be implemented in order to solve these problems</li> </ul>
Supply Chain Management	<ul style="list-style-type: none"> <li>• educates students about the concepts of and the role supply chain management</li> </ul>

(Elective-VI)	<ul style="list-style-type: none"> <li>• stimulate critical thinking on the topics of competitive performance, network design, planning for inventories in supply chain and opportunities for growth</li> <li>• evaluate current trends, growth opportunities and niche markets, within the area of Logistics</li> </ul>
<p style="text-align: center;">Design of Experiments (Elective-VI)</p>	<ul style="list-style-type: none"> <li>• understand the nature of variability</li> <li>• understanding of the principles of statistical inference</li> <li>• apply statistical inference and control charts to applications</li> <li>• understand assumptions and limitations of DOE</li> <li>• conceive and conduct a designed experiment to characterize a process</li> </ul>