

IC Engine & Gas Turbine	<ul style="list-style-type: none"> To provide students with a thorough understanding of energy systems, heat transfer and thermodynamic applications to Internal Combustion engines. An advanced understanding of the theory and operation of gas turbine engines is also addressed.
Fluid Machines	<ul style="list-style-type: none"> To understand basic concept of fluid flow and its application to chemical process industries including pipe flow, fluid machinery and agitation & mixing.
Heat Transfer	<ul style="list-style-type: none"> To understand the fundamentals of heat transfer mechanisms in fluids and solids and their applications in various heat transfer equipment in process industries.
Machine Design I	<ul style="list-style-type: none"> Provide students with the ability to apply design procedure with specific design tools representing empirical, semi-empirical and analytical approaches. Using analytical and computer aided design with real world problems
Steam Generation and Power	<ul style="list-style-type: none"> Provide students with the overall knowledge of boilers their design considerations including mounting and accessories. Enrich students with the design consideration and efficiencies of steam turbines, condensers, nozzles and many more.
Thermal Engineering Lab	<ul style="list-style-type: none"> The objective of the thermal engineering laboratory is to introduce the student the fundamental theories and the industrial applications of thermodynamics, heat transfer, and fluid mechanics. This laboratory supports the courses for the undergraduate and graduate studies. Moreover, this laboratory also supports the advanced research in the area of thermal engineering, heat transfer, and fluid mechanics.
Fluid Machines Lab	<ul style="list-style-type: none"> A large number of experiments could be performed in the laboratory to demonstrate the principles of hydraulics and fluid mechanics deals with the different experiments. The main objective of this fluid mechanics and hydraulic machines lab is to build fundamental concepts combined with strong analytical and problem solving abilities that would form the backbone of many other subjects in higher educations.
Heat Transfer Lab	<ul style="list-style-type: none"> This course is designed to introduce a basic study of the phenomena of heat and mass transfer, to develop methodologies for solving a wide variety of practical engineering problems, and to provide useful information concerning the performance and design of particular systems and processes. A knowledge-based design problem requiring the formulations of solid conduction and fluid convection and the technique of numerical computation progressively elucidated in different chapters will be assigned and studied in detail. To gain experience in designing experiments for thermal systems, the design, fabrication, and experimentation of a thin film heat flux gage will be attempted as part of laboratory requirements.
Industrial Training-I	<ul style="list-style-type: none"> expose students to the 'real' working environment and get acquainted with the organization structure, business operations and administrative functions have hands-on experience in the students' related field so that they can relate and reinforce what has been taught at the university promote cooperation and to develop synergetic collaboration between industry and the university in promoting a knowledgeable society
Personality Development	<ul style="list-style-type: none"> To develop listening, speaking, reading and writing skills To cultivate the habit of reading newspapers, magazines and books to

(Communicative English)	<ul style="list-style-type: none"> consolidate the skills/ knowledge already acquired To familiarize students with sounds of English in a nutshell
Essentials of Information Technology-I	<ul style="list-style-type: none"> Gain fundamental knowledge regarding technical concepts and practices in information technology (IT). Gain a broad background across fundamental areas of information technology along with a depth of understanding in a particular area of interest within the domain of information systems.
Industrial Engineering (Elective I)	<ul style="list-style-type: none"> The aim of this subject is to teach the students with the basic knowledge of operations research and industrial management.
Sustainability through Green Manufacturing Systems: An Applied Approach (Elective-I)	<ul style="list-style-type: none"> Sustainability aims to conserve energy and natural resources, and to ensure that they have minimal impact on the environment and society. It targets at fulfilling the needs of the present without compromising the ability of future generations to meet their own needs. This course provides an overview of the Sustainability in Manufacturing Systems; various methodologies and its application to improving the eco-efficiency are focused. An additional objective is provide insights on Sustainable aspects management methodologies such as Lean manufacturing, Green Supply Chain, and Process Integration. Simulation of the systems is also discussed to make the students learn to cater the modern tools in virtual environment
Heat Exchanger Design (Elective-I)	<ul style="list-style-type: none"> get familiar with the types, design and selection of heat exchanger present the principles of single and two phase heat exchangers and to relate to their practical applications and design aspects
Total Quality Management (Elective-I)	<ul style="list-style-type: none"> introduce the main principles of business and social excellence generate knowledge and skills of students to use models and quality management methodology for the implementation of total quality management in any sphere of business and public sector
Refrigeration and Air Conditioning	<ul style="list-style-type: none"> To study the various types of the refrigeration cycle, working of refrigeration and air conditioning systems.
Mechanical Vibrations	<ul style="list-style-type: none"> fully understand and appreciate the importance of vibrations in mechanical design of machine parts that operate in vibratory condition be able to obtain linear vibratory models of dynamic systems with changing complexities be able to write the differential equation of motion of vibratory systems be able to make free and forced (harmonic, periodic, nonperiodic) vibration analysis of single and multi degree of freedom linear systems.
Tribology	<ul style="list-style-type: none"> To develop an understanding of the tribological analysis of machine components. This understanding will include concepts such as lubricants, analysis of friction and wear, hydrodynamic bearings, squeeze film bearings, hydrodynamic instability
CAD/CAM	<ul style="list-style-type: none"> Introduce components and assemblies used in machines and use of 3D parametric CAD, CAE software for mechanical design. To provide an experiential learning environment using projects done by student groups, while

	<p>applying CAD, CAE software tools to design mechanisms and structures for mechanical design evaluation, optimization of mass properties, static-stresses, deformations, etc. with experimental validation of simulation models</p>
<p>Refrigeration and Air Conditioning Lab</p>	<ul style="list-style-type: none"> • To impart knowledge about principles of producing low temperatures by using multi-pressure systems and cascade systems. • To provide concepts about designing, installation and servicing of air conditioning systems in residential, commercial and industrial buildings. • To educate about various system components and accessories of refrigeration and air-conditioning systems.
<p>Tribology and Mechanical Vibration Lab</p>	<ul style="list-style-type: none"> • To present the fundamentals and applications of vibration theory. • Students will demonstrate the ability to model and analyze free and forced vibration of multi-degree of freedom systems. • Students will be able to apply vibration principles for the design of engineering systems and devices. • Students will demonstrate the ability to use experimental as well as theoretical vibration analysis for system parameter identification and vibration trouble shooting. • Enhance a team work spirit and report writing.