

III Year- II Semester

COURSE OUTCOMES – MECHANICAL ENGINEERING

Automobile Engineering

- CO 1:-** Identify the different parts of the automobile
- CO 2:-** Explain the working of various parts like engine, transmission, clutch, brakes
- CO 3:-** Describe how the steering and the suspension systems operate.
- CO 4:-** Understand the environmental implications of automobile emissions
- CO 5:-** Develop a strong base for understanding future developments in the automobile industry

Finite Elements Methods

- CO 1:-** to develop the ability to generate the governing FE equations for systems governed by partial differential equations
- CO 2:-** to understand the use of the basic finite elements for structural applications using truss, beam, frame, and plane elements
- CO 3:-** to demonstrate the ability to create models for trusses, frames, plate structures, machine parts, and components using ANSYS general-purpose software
- CO 4:-** to demonstrate the ability to evaluate and interpret FEA analysis results for design and evaluation purposes
- CO 5:-** to develop a basic understanding of the limitations of the FE method and understand the possible error sources in its

Refrigeration and Air Conditioning

- CO 1:-** Understand the difference between refrigeration and air conditioning
- CO 2:-** Describe the two methods of lowering the temperature of material
- CO 3:-** Understand the difference between sensible and latent heat
- CO 4:-** Understand the function of each of the major refrigeration system components: evaporator, compressor, condenser, and metering device
- CO 5:-** Describe the function of the refrigerant in a refrigeration system and trace its path

Design of Machine Members-II

- CO 1:-** Explore the student's understanding of properties of different materials and design procedure for elements.
- CO 2:-** Determination of different parameters of elements by calculating stresses using theories of failures.
- CO 3:-** Design IC engine parts under different load conditions
- CO 4:-** Analyze the stresses developed in the power transmission systems and Pulleys
- CO 5:-** Classify and design the different types of gears
- CO 6:-** Design power screws for effective working

Heat Transfer

- CO 1:-** Ability to understand and solve conduction, convection and radiation problems
- CO 2:-** Ability to design and analyze the performance of heat exchangers and evaporators
- CO 3:-** Ability to design and analyze reactor heating and cooling systems
- CO 4:-** able to understand the basic laws of heat transfer, account for the consequence of heat transfer in thermal analyses of engineering systems
- CO 5:-** analyze problems involving steady state heat conduction in simple geometries, develop solutions for transient heat conduction in simple geometries

Human Values and Professional Ethics

- CO 1:-** Understood the core values that shape the ethical behavior of an engineer
- CO 2:-** Exposed awareness on professional ethics and human values

- CO 3:-** Known their role in technological development

Heat Transfer Lab

- CO 1:-** practically relate to concepts discussed in the Heat & Mass Transfer course.
- CO 2:-** conduct various experiments to determine thermal conductivity and heat transfer coefficient in various materials.
- CO 3:-** select appropriate materials & designs for improving effectiveness of heat transfer

CO 4:- conduct performance tests and thereby improve effectiveness of heat exchangers

CO 5:- conduct performance tests and thereby improve effectiveness of refrigeration and air conditioning systems.

Advanced Communication Skills lab

CO 1:- Accomplishment of sound vocabulary and its proper use contextually

CO 2:- Flair in Writing and felicity in written expression.

CO 3:- Enhanced job prospects.

CO 4:- Effective Speaking Abilities