

# III Year- I Semester

## COURSE OUTCOMES – MECHANICAL ENGINEERING

### Managerial Economics and Financial Analysis

- CO 1:-** Understand the market dynamics namely, demand and supply, demand forecasting, elasticity of demand and supply, pricing methods and pricing in different market structures.
- CO 2:-** Gain an insight into how production function is carried out to achieve least cost combination of inputs and cost analysis.
- CO 3:-** Analyze how capital budgeting decisions are carried out.
- CO 4:-** Know how to analyze and interpret the financial statements through ratio analysis.

### Engineering Metrology

- CO 1:-** Students will be able to work in Quality control and quality assurances divisions in industries
- CO 2:-** Students will be able to design a sensors and transducers used for stress analysis.
- CO 3:-** Students will be able to design a measuring equipments for the measurement of temperature and flow
- CO 4:-** Students will be able to maintain quality in engineering products.

### Dynamics of Machinery

- CO 1:-** Mastery of the knowledge in dynamics of planar mechanism
- CO 2:-** Analyze static and dynamic force analysis of mechanisms
- CO 3:-** Take notice of importance of the balancing and learn procedures of the basic balancing.
- CO 4:-** Ability to understand the implications of computed results in dynamics to improve the design of a mechanism

### Machine Tools

- CO 1:-** Apply cutting mechanics to metal machining based on cutting force and power consumption.
- CO 2:-** Operate lathe, milling machines, drill press, grinding machines, etc.

**CO 3:-** Select cutting tool materials and tool geometries for different metals.

**CO 4:-** Select appropriate machining processes and conditions for different metals

**CO 5:-** Learn machine tool structures and machining economics.

### **Design of Machine Members-I**

**CO 1:-** Be able to analyze the stress and strain on mechanical components; and understand, identify and quantify failure modes for mechanical parts

**CO 2:-** Demonstrate knowledge on basic machine elements used in machine design; design machine elements to withstand the loads and deformations for a given application, while considering additional specifications.

**CO 3:-** Be able to approach a design problem successfully, taking decisions when there is not a unique answer.

**CO 4:-** Be proficient in the use of software for analysis and design.

### **Thermal Engineering-II**

**CO 1:-** Classify different types of boilers and its applications and its various mountings and accessories and its performance parameters

### **Thermal Engineering lab**

**CO 1:-** Determine the valve timing diagram of SI engine & CI engine.

**CO 2:-** Analyze the influence of variations in TDC and BDC operations

**CO 3:-** Calculate the IP, BP, brake thermal efficiency.

**CO 4:-** Calculate & Compare the performance characteristics.

**CO 5:-** Experiment on IC engine load variations with Air fuel ratio

**CO 6:-** Apply the concept of Morse test on SI engine.(multi cylinder).

