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| <b>Course Title:</b><br>Machine Design-II | <b>Course Code:</b><br>ME-320 | <b>Credit Hrs:</b><br>3+0 |
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**Textbook:**

- Robert L. Mott, Machine Elements in Mechanical Design

**Reference Books:**

- Robert L. Norton, Design of Machinery
- Joseph E. Shigley, Theory of Machines & Mechanisms

**Course Objective:**

HVAC (Heating, Ventilation, and Air Conditioning) involves designing, installing, and maintaining systems that control indoor environmental conditions, including temperature, humidity, air quality, and ventilation, to ensure comfort and safety in buildings and vehicles.

**Course outline:**

- Spur, Helical, Bevel and Worm Gears: Stress analysis on gear teeth and Power transmission by the gears
- Design of Flywheels: Concepts of designing flywheels for different requirements
- Selection of bearings: Selection procedures of sliding contact bearings and rolling contact bearings
- Design of Brake / Clutches: Different types of clutches and designing concepts, Different types of brakes and designing concepts
- Design of Power Screws / Translation Screws: Introduction to power / translational screws, Stresses in power / translational screws, Efficiency of power / translational screws and Applications of power / translational screws
- Selection of Standard Machine Elements: Selection of flat belts, V belts, chain drive and rope drives.

| Description                          | Percentage Weightage (%) |
|--------------------------------------|--------------------------|
| Assignments                          | 05-10%                   |
| Quizzes                              | 10-15%                   |
| Mid Semester Exams                   | 30-40%                   |
| End Semester <b>ASSESSMENTS</b> Exam | 40-50%                   |