



“Mechanized Design Application”

Department: Mechanical Engineering

Course Name : Mechanical System Design

Final Year of Mechanical Engineering (2015 Course)

Course Code : 402048

Course Objectives:

1. To develop competency for system visualization and design.
2. To enable student to design cylinders and pressure vessels and to use IS code.
3. To enable student select materials and to design internal engine components.
4. To introduce student to optimum design and use optimization methods to design mechanical components.
5. To enable student to design machine tool gearbox.
6. To enable student to design material handling systems.
7. Ability to apply the statistical considerations in design and analyze the defects and failure modes in components

Course Outcomes:

On completion of the course, students will be able to -

- C01: Understand the difference between component level design and system level design.
- C02: Design various mechanical systems like pressure vessels, machine tool gear boxes, material handling systems, etc. for the specifications stated/formulated.
- C03: Learn optimum design principles and apply it to mechanical components.
- C04: Handle system level projects from concept to product.