

Course Code : ME 784

Course Title : Automotive Manufacturing

Credit Hours : 3

Course Description

Structure and manufacturing technology of automotive materials, mechanical and physical properties of automotive materials, Materials selection for automotive components, An advanced study for design to manufacture as a single process, manufacturing analysis, tools and methods, manufacturing and assembly processes, assembly lines, and design of production lines.

Course Objectives

The student should be able to:

- Understand the basics and advanced principles of automobile manufacturing technology.
- Use modern tools for the design of automobile components.
- Become familiar with the automobile manufacturing process.

Course Topics

Week no. 1: Structure and manufacturing technology of automotive materials

Week no. 2: Structure and manufacturing technology of automotive materials

Week no. 3: mechanical and physical properties of automotive materials

Week no. 4: mechanical and physical properties of automotive materials

Week no. 5: Materials selection for automotive components.

Week no. 6: Materials selection for automotive components.

Week no. 7: An advanced study for design to manufacture as a single process / 7th week evaluation.

Week no. 8: An advanced study for design to manufacture as a single process

Week no. 9: manufacturing analysis, tools and methods

Week no. 10: manufacturing analysis, tools and methods

Week no. 11: manufacturing and assembly processes, assembly lines

Week no. 12: manufacturing and assembly processes, assembly lines / 12th week evaluation

Week no. 13: design of production lines

Week no. 14: design of production lines

Week no. 15: design of production lines

Week no. 16: Final examination