



National University of Sciences and Technology

Course Description

Course Title	Course Code	Credit Hours
Product Design and development	ME 871	3 – 0

Textbook:

- O. Molloy, S. Tilley, E. Warman, Design for Manufacturing and Assembly, Concepts, architectures and implementation.

Reference Books:

- Geoffrey Boothroyd, Peter Dewhurst and Winston A. Knight, Product Design for Manufacture and Assembly.
- Corrado Poli, Design for Manufacturing: A Structured Approach.
- James Bralla, Design for Manufacturability Handbook.

Course Objective:

- Prepare students to innovate in product design by integrating advanced engineering principles, user-centric approaches, and sustainable practices, fostering the creation of high-value and competitive products.

Course Outline:

Principles of Automated Design, Principles of DFA (Design for Assembly), Projects on DFA, Principles of DFD (Design for Disassembly), Principles of DFM (Design for Manufacturability). Issues of Concurrent Design, Automated Design

ASSESSMENTS

Description	Percentage Weightage (%)
Assignments	05-10%
Quizzes	10-15%
Mid Semester Exams	30-40%
End Semester Exam	40-50%