



National University of Sciences and Technology

Course Description

Course Title	Course Code	Credit Hours
Design of Experiments	ME-844	3 – 0

Textbook:

- Jiju Antony, Design of Experiments for Engineers and Scientists.

Reference Books:

- Practical Experiment Designs for Engineers and Scientists by William J. Diamond

Course Objectives:

- To introduce the basic principles and methods of statistical design of experiments.

The significances of effects of various factors on a given response are determined under uncertainty using statistical principles.

Course Outline:

- Review of Statistics and Probability
- Probability Distributions
- Sampling Distributions
- Design of Experiments
- Single and Multi-Factor Analysis of Variance (ANOVA)
- Factorial Design of Experiments
- 2k and 3k designs
- 2k designs with Center Points,
- Response Surface Methodology
- Simple and Multiple Regression. experiments.

ASSESSMENTS

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