

UG

Course Code: **CH414**

Credit: **3**

Version: **1**

Prerequisite Course: **Nil**

Department: **Chemical Engineering**

Course Name: **Applied Statistics for Chemical Engineers**

L-T-P: **3-0-0**

Approved on:

Elementary concept of statistics, significance tests, Linear regression, hypothesis testing, analysis of variance.

Design of experiments, Nonlinear parameter estimation, Model building and model discrimination.

Books

1. Box, G.E.P., Hunter, W.G., and Hunter, J.S., "*Statistics for Experimenters*," John Wiley and Sons, 1978.
2. Draper, N.R. and Smith, H., "*Applied Regression Analysis*", Volume 1, Wiley, 1998.
3. Holman, J.P. "*Experimental Methods for Engineers*", 7th edition, McGraw-Hill, Singapore, 2001.
4. Himmelblau, D.M., "*Process Analysis by Statistical Analysis*," John Wiley and Sons, 1970.
5. Montgomery, D.C., "*Design and Analysis of Experiments*," John Wiley and Sons, 1984.
6. Feller, W., "*An Introduction to Probability Theory*," Vols. 1 and 2, 3rd ed., John Wiley and Sons, 1968.