

SYLLABUS :-

Prerequisites: IM31005 Quality Design and Control Experimental design fundamentals; Statistical concepts; Features of experimentation; Analysis of variance (ANOVA): no-way, one-way, two-way, and three-way ANOVA, Critique of F-test; Some experimental designs: Factorial experiments (2k), role of contrasts, confounding, fractional replication, and other aspects; 2k-p fractional factorial experiments; Response Surface Methodology (RSM).Taguchi philosophy; Loss function; Orthogonal arrays: Steps in designing, conducting, and analysing an experiment; Parameter and tolerance design concepts: control and noise factors; Analysis of inner/outer array experiments: signal-to-noise ratio and performance measures; Applications to attribute data.Books&Montgomery, D.C. (2004), Design and Analysis of Experiments, John Wiley