

STS 394 – Laboratory for Experimental Design I

Purpose/Goals:

This course will provide students with a review of basic statistical concepts as well as detail coverage of simple experimental design procedures. Students will have the opportunity to gain practical experience with the analysis of experimental data using SPSS, R and other Statistical Packages. Several different designs and procedures will be covered. Expertise in statistics comes with practice and experience. The goal here is to learn the fundamental principles and basic techniques, which will allow the learning process to begin.

Specific topics to be covered will include Completely Randomised Design, Randomised Complete Block Design, Latin Square Design and Simple Factorial Experiments with two factors each at two levels. Practical applications will be done using data from Agriculture, Biology, Engineering and Industry.

Statistical Packages

SPSS

S-Plus

R

GENSTAT

SAS

MINITAB