STAT 430	Fall 2013
Statistical Design and Analysis of Experiments	**Day Course**

Instructor: Dr. Steven Thompson

Prerequisite:

STAT 350 (or MATH 372)

Textbook:

Design of Experiments: Statistical Principles of Research Design and Analysis (2nd ed.) by Robert O. Kuehl. Publisher: Duxbury

Calendar Description:

An extension of the designs discussed in STAT 350 to include more than one blocking variable, incomplete block designs, fractional factorial designs, and response surface methods. **Quantitative.**

Outline:

1. Ideas in design and analysis of experiments.

2. Statistical and design concepts. Experiments, sampling, observational studies, natural experiments.

3. Completely randomized designs, single treatment factor.

4. Blocking in Experiments.

5. Factorial designs.

6. Response surface methodology, regression, exploratory experiments, sequence of experiments.