STAT 350	Summer 2012
Linear Models in Applied Statistics	**Day Course**

Instructor: Dr. Jiguo Cao

Prerequisite:
STAT 285 and MATH 251.

Textbook:
Applied Linear Regression, 3rd ed., by Sanford Weisberg, Publisher: Wiley

Calendar Description:
Theory and application of linear regression. Normal distribution theory. Hypothesis tests and confidence intervals. Model selection. Model diagnostics. Introduction to weighted least squares and generalized linear models. **Quantitative**

Outline:

1. Linear models: Definition, simple and multiple linear regression models, ANOVA models. Incorporating different types of predictor variables and their interactions in the model. Matrix notation.
2.