

Course Number: STAT 4610

Course Title: Regression Analysis

Credit Hours: 3

Prerequisites: STAT 3610 or 3010. STAT 2510 with consent of instructor.

Corequisite: n/a

Course Content/Objective:

1. Review of Simple Regression (2 weeks)
2. Least Square Parameter Estimates (1/2 week)
3. Hypothesis Testing and Confidence Intervals (1 week)
4. Multiple Regression (3 weeks)
5. General Linear Hypothesis Testing (1 week)
6. Variable Selection Procedures (2 weeks)
7. Multicollinearity (1 1/2 weeks)
8. Residual Diagnostics (1 week)
9. Model testing and Data Analysis (1 1/2 weeks)
10. Transformation of Variables (1 week)
11. Non-linear Least Squares (1 week)

Possible Textbook:

Applied Linear Regression Models, 4th Edition, by Kutner, Neter, Nachtsheim and Wasserman (McGraw-Hill, 2003).