Course Title:  Regression Analysis

Number of Credits: 3 S.H.

Catalog Description: Simple linear regression, multiple regression, model development and model assessment. Computer use will be emphasized. Prerequisite: an introductory statistics course (preferably STAT 210) and MATH 120 and completion of or concurrent enrollment in MATH 130 or MATH 270 is recommended but not required. Offered fall semester.

Possible Textbooks:


Myers, R. Classical and Modern Regression with Applications (2nd Edition), Duxbury, 1986.

Topics Covered:

A.  Review of Statistical Prerequisites
B.  Introduction to Regression
C.  Simple Linear Regression
D.  Introduction to Multiple Linear Regression
E.  Checking Model Adequacy
F.  Regression Diagnostics
G.  Transformations (Response and Predictors)
H.  Model Development

Method of Instruction: Lecture, case studies, discussion, group work, problem solving sessions, and computer sessions.

Evaluation: Exams, quizzes, projects, and homework.

Computer Software:

- Arc / XLISP-STAT *
- JMP Version 5.1 *
- SAS for Windows
- R or S-Plus 6.0 for Windows
• SPSS for Windows
  * recommended