MBA 5500, Quantitative Modeling

Course Description: A study of practical statistics and operations research topics using spreadsheet models.   Statistical concepts include confidence intervals, hypothesis testing, chi-square tests, t-tests, ANOVA=s, correlation analysis, and regression analysis. Operations research topics will integrate finance, marketing and operation management models using spreadsheets. *Prerequisites: BUS 3950 and admission to the MBA or MSNS-GIS degree program.*

Learning Objectives:

1. Apply commonly used statistical tools including graphical presentation of data, confidence intervals, hypothesis testing, chi-squared tests, t-tests, ANOVA=s, correlation analysis, and regression analysis to solve business problems.

2. Apply operations research/management science theories to optimize and perform sensitivity analysis of models.

3. Evaluate decision alternatives using techniques from management science.

4. Use advanced spreadsheet modeling skills to solve problems in all business disciplines.

5. Utilize the Excel Solver Add In to optimize linear programming, network, integer programming, and nonlinear programming spreadsheet models.