

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, ANOVAs, correlation analysis, and regression analysis. Operations research topics will integrate finance, marketing and operation management models using spreadsheets.

Prerequisites: Admission to the MBA degree program and all Phase I courses.

Learning Objectives:

1. Practice using statistical tools used most frequently in business including confidence intervals, hypothesis testing, chi-squared tests, t-tests, ANOVA=s, correlation analysis, and regression analysis.
2. Apply theories of operations research/management science in an organizational setting.
3. Develop spreadsheet modeling skills that are needed for solving problems in all business disciplines. In particular, examples from finance, marketing and operations management will be covered.
4. Solve linear and nonlinear programming problems using the Excel Solver Add-In.
5. Solve multiple objective decision making problems using the Excel Solver Add-In.
6. Integrate concepts from finance, marketing, operations management and information systems.