COURSE OBJECTIVES

The course goals are for each student to understand regression methods and obtain hands-on experience using, analyzing, and developing multivariate models for business applications. This is a data analysis course that shows how to use the statistical package JMP to help solve both simple and complex real-life data problems.

REGRESSION METHODS

Regression analysis is performed in any organization working with quantifiable data.

- Marketing: using sales forecasts to for promotional budgets.
- Accounting: forecasting costs and revenues in tax planning.
- Finance: forecasting cash flows to maintain solvency.
- HR: forecasting and planning for recruitment of new employees, as well as other changes in the workforce.
- Production/Operations: forecasting raw material needs and desired inventory of finished products.

KEY CONCEPTS

Numerous real examples from finance, marketing, economics, accounting, politics, sports, etc., are used to illustrate applications of the material covered. Emphasis will be placed on the analysis of actual datasets.

Knowledge of Regression Analysis is a skill in very high demand for students looking to work in either the private or public sector. This course develops those skills and opens possibilities for a business analyst/forecasting management position in business. There is a shortage of well-trained graduate business students for these types of positions.

This course is intended for students working in the fields of Accounting, Economics, Finance, General Business, Human Resources, Marketing, Operations, etc., who want a practical introduction to Applied Statistics, Multivariate Analyses, and Econometrics.

WHY SHOULD YOU TAKE THIS COURSE?

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COURSE DESCRIPTION

This is a data-driven applied statistics course focusing on the analysis of data using Regression and Multivariate models. Topics include Multiple Linear Regression, Residual Analysis and Non-linear Model-building, Heteroscedasticity, Time Series Modeling, Categorical Predictors, Logistic Regression, Analysis of Variance, Clustering, and Panel Data Analysis.