

Enterprise Guide: ANOVA Regression and Logistic Regression

Course Description

This course focuses on the following key areas: statistical inference, analysis of variance, multiple regression, categorical data analysis, and logistic regression. You learn to construct graphs to explore and summarize data, construct confidence intervals for means, test hypotheses, apply multiple comparison techniques in ANOVA, assess and correct co linearity in multiple regression, use diagnostic statistics to identify potential outliers in multiple regression, use chi-square statistics to detect associations among categorical variables, and fit a multiple logistic regression model.

Course Contents

Introduction to Statistics

- examining data distributions
- obtaining and interpreting sample statistics
- describing categorical data

Inferences for the Mean

- constructing confidence intervals
- performing simple tests of hypothesis

Analysis of Variance

- performing one-way ANOVA
- performing multiple comparisons
- performing two-way ANOVA with and without interactions

Regression

- producing scatter plots
- producing correlations
- fitting a simple linear regression model
- understanding the concepts of multiple regression
- building and interpreting models

Regression Diagnostics

- examining residuals
- investigating influence and co linearity

Categorical Data Analysis

- producing frequency tables
- examining tests for general and linear association
- understanding the concepts of logistic regression