Introduction to Business Statistics

Course Number: BUS-STAT

Duration: 2 days

Course Description

The Introduction to Business Statistics training course teaches participants how to calculate appropriate statistical measures, apply statistical procedures, and recognize key data pitfalls to effectively communicate analytical conclusions to stakeholders.

Skills Gained

- Choose appropriate measures to use in a given situation and calculate using Excel
- Consider data gathering methods, bias, and error
- Interpret the results and conclusions of statistical analysis
- Recognize key pitfalls be aware of and avoid
- Visualize and communicate the results in a fair, objective, and unbiased manner

Prerequisites

All students should have prior experience working with data visualization and corporate reporting.

Software Requirements

- Microsoft Excel
- Internet access

Course Details

Outline

Introduction

- Overview of using data analysis and statistics for effective decision-making
- Installing the Data Analysis Tool Pack add-in for Excel

Exploring and visualizing data

- Types of variables
- Choosing chart types
- Formatting best practices

Descriptive statistics

- Real-world uses for specific measures and how to visualize
- Samples vs. populations
- Measures of Central Tendency
- Measures of variation and position
- Looking at the shape of the data and the impact of outliers
- Cautions and common pitfalls (e.g. Anscombe's Quartet)
- Dealing with bad data and ensuring it's reliable for good decisions

Probability

- Overview
- Applications
- Cautions and fallacies

Inference for a Population

- Sampling
- Methods
- Bias
- Error
- Sampling distribution for the mean
- Central Limit Theorem
- Confidence Intervals

Regression

- Correlation

- Linear Regression
- When to use it
- How to interpret output meaningfully

Conclusion