Module 1 – Introduction

- Course Expectations
- The 4 Levels of Analytics
- Getting to the "Why"
- The Datasets
- Data Types
- Introducing ggplot2

Module 2 – Distribution Analysis

- Example Business Questions
- Frequency Distributions
- Insights using Histograms:
  - Spread
  - Center
  - Shape
- Additional Insights with Histograms
- Medians & Quartiles
- Insights using Box Plots
- Building Histograms and Box Plots with ggplot2
- Hands-on Lab 1

Module 3 – Correlation Analysis

- Correlation vs. Causation
- Example Business Questions
- Correlation Concepts
- Insights with Scatter Plots:
  - Correlation Direction
  - Correlation Strength
  - Correlation Shape
- Additional Insights with Scatter Plots
- Building Scatter Plots with ggplot2
- Hands-on Lab 2

Module 4 – Multivariate Analysis
- What is Multivariate Analysis?
- Example Business Questions
- Bar Charts
- Proportion Bar Charts
- Multivariate Bar Charts
- Multivariate Distribution Analysis
- Creating Multivariate Visualizations with ggplot2
- Hands-on Lab 3

Module 5 – Time Series Analysis
- Example Business Questions
- Analyzing Time Series Patterns
  - Trend
  - Variability
  - Cycles
  - Rate of Change
  - Exceptions
- Line Charts for Time Series Analysis
  - Summary Stats in Excel
  - R's summary Function
- Analyzing Variance over Time with Box Plots
- Additional Time Series Insights
- Building Time Series Visualization with ggplot2
- Hands-on Lab 4

Module 6 – Course Wrap-Up
- Additional Resources