

Module 1 - Predictive Analytics Concepts

- What and Why of Predictive Analytics
 - Predictive Analytics Defined
 - Business Value of Predictive Analytics
- The Foundation for Predictive Analytics
 - Statistical Foundation
 - Data Mining Foundation
 - Machine Learning Foundation
 - Data Science Foundation
 - Describing Data Science
 - The Changing Landscape of Data Sources
- Predictive Analytics in BI Programs
 - Predictive Analytics in the BI Stack
 - Predictive Analytics in the BI Roadmap
 - Business, Technical, and Data Dependencies
- Becoming Analytics Driven
 - Business Driven
 - Grass Roots Driven
- Common Applications for Predictive Analytics
 - What Business Needs to Predict
- The Language of Predictive Analytics
 - Making Sense of the Terminology

Module 2 - Models and Statistics

- Predictive Models
 - What Are Models?
 - Using Models
 - Categories of Models
 - Model Development
 - Contributing Communities
- Descriptive Statistics
 - Variables
 - Frequencies and Summaries
 - Distribution and Skew
 - Relationships
 - Dependent and Independent Variables
- Inferential Statistics
 - Modeling the Population
- Probability
 - Estimating Likelihood
 - Calculating Probability
 - Calculating Odds
 - Logit Transformation
 - Probability Distribution Models
 - Probability Distribution Examples

Module 3 - Regression Model Examples

- Regression Models
 - Overview
- Linear Regression Models
 - Overview
 - Example Business Case
 - Example Model
- Logistic Regression Models
 - Overview
 - Example Business Case
 - Steps for Creating the Model
 - Example Model
 - Predictors and Classifiers
 - Classifier Example

Module 4 - Building Predictive Models

- Model Building Processes
 - Data Mining Projects
 - CRISP-DM
 - SEMMA
 - CRISP-DM and SEMMA Compared
- Implementation and Operations Teams
 - A Team Effort
 - Roles and Responsibilities
- Predictive Techniques
 - Probability Values
 - Classification and Clustering
 - Segmentation
 - Association
 - Sequencing
 - Forecasting
- Technology
 - Features and Functions Overview
 - The Tools Landscape
- Model Building Algorithms
 - What and Why
 - Some Examples

Module 5 - Implementing Predictive Capabilities

- Introductory Concepts
 - Distribution View
 - Model Types View
 - Process View
 - Process Overview
- Business Understanding

- Activities and Deliverables
 - Pragmatics
- Data Understanding
 - Activities and Deliverables
 - Pragmatics
- Data Preparation
 - Activities and Deliverables
 - Pragmatics
- Modeling
 - Activities and Deliverables
 - Pragmatics
- Evaluation
 - Activities and Deliverables
 - Pragmatics
- Deployment
 - Activities and Deliverables
 - Pragmatics

Module 6 - Human Factors in Predictive Analytics

- Analytics Culture
 - Executive Buy-In
 - Strategic Positioning
 - Enterprise Range and Reach
 - Decision Processes
- People and Predictive Analytics
 - The Team
 - The Range of People
 - The Range of Knowledge
 - Readiness
 - Trust and Motivation
 - Expectations and Intent
 - Getting from Analytics to Impact
- Ethics and Predictive Analytics
 - Why Ethics Matters
 - Data and Ethics

Module 7 - Getting Started with Predictive Analytics

- Predictive Analytics Readiness
 - Readiness Checklist
 - Executive Commitment
 - Organizational Buy-In
 - Data Assets
 - Human Assets
 - Technology Assets
- Predictive Analytics Roadmap
 - A Plan to Evolve
 - An Evolving Plan