



TDWI Predictive Analytics Fundamentals (NEW)

Training Calendar

Date	Training Time	Location
07 January 2019	1 Day	Bilginç IT Academy
17 June 2019	1 Day	Bilginç IT Academy

Training Details

Training Time	:	1 Day
Capacity	:	10
Prerequisites	:	There are no prerequisites for this course.

About Training

About Training

This course introduces the building blocks needed to implement predictive capabilities within an organization. It also helps develop the necessary understanding about how models, people, and decision processes must interact to drive actual business impact. Techniques based on statistics, probability, linear regression, logistic regression, and decision trees are described as key enablers for creating predictive models. Additional topics related to problem framing, data profiling, data preparation, model evaluation, human factors, leadership, and organizational culture are presented as additional and necessary ingredients for success.

What You'll Learn

- Definitions, concepts, and terminology of predictive analytics
- What data science is and how it relates to predictive analytics and BI programs

- Purpose, structure, and categories of models
- Methods adapted from statistics, data mining, and machine learning
- Functionality of predictive models and related development approaches
- Common applications and use cases for predictive analytics
- How successful predictive capabilities are enabled by human and organizational factors
- Essential team composition, skills development, and organization models including roles, responsibilities, and accountabilities
- Why business, technical, and management skills are essential for success
- Practical guidance for getting started with predictive analytics

Who Should Attend

- BI and analytics executives, program managers, architects, and project managers
- Data-driven business professionals who want to learn how to implement the “power to predict”
- Technology professionals who want to develop their understanding of predictive analytics
- Business analysts who want to use predictive techniques in their analytics studies
- Business managers who want to develop a proactive and predictive decision-making style in their operations
- Anyone interested in learning the basics of predictive analytics and how it can drive business improvement

Outline

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 - Understanding Models

- Overview and Context
- What Are Models?
- How Models Are Used
- Categories of Models
- How Are They Built?
- Enabling Techniques
- Contributing Communities
- Descriptive Statistics
- Frequencies and Summaries
- Variables
- Relationships
- Dependent and Independent Variables
- Understanding Probability
- Statistics Revisited
- Probability
- Probability Examples
- Probability Estimation
- Odds
- Logit Transformation
- Logit Transformation Example
- Probability Distributions
- Symmetrical Continuous Distribution
- Skewed Continuous Distributions
- Discrete Distributions
- Distribution Examples

Module 3 - Regression Model Examples

- Regression Models
- Description
- Linear Regression Models
- Overview
- Example
- Model Description
- Logistic Regression Models
- Overview
- Example
- Steps for Creating the Model
- Model Description
- Model Results
- Predictors and Classifiers

- Predictor and 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