Course Outline

Module One
Dimensional Modeling Concepts

- Dimensional Modeling in Context
  - Business Intelligence Defined
  - Data Warehousing Defined
  - Data Mart Defined
- Dimensional Modeling Basics
  - Dimensional Model Defined
  - Dimensional Modeling Defined
  - Business Metrics and Measures Defined
  - Business Metrics Examples
  - Dimensional Data Models
- Comparing E-R and Dimensional Models
  - A Quick Review of E-R Modeling
  - Introduction to Dimensional Models
  - Relational with Additional Constraints
  - A Basis for Comparison
  - Relational for Transaction Processing
  - Dimensional Data for Business Analysis
  - Conformed Dimensions
- Concepts Summary
  - Review of Some Key Points

Module Two
Requirements Gathering for Dimensional Models

- Business Context for Data Modeling
  - Business Value
  - Business Alignment
  - Business Process Alignment
- Business Questions as Requirements Models
  - A Framework for Business Questions
  - Examples
  - Refining Business Questions
- Fact/Qualifier Analysis
  - From Business Questions to Data Requirements
  - Mapping Business Questions
- Requirements Gathering Summary
  - Process Review

Module Three
Logical Dimensional Data Modeling

- Modeling Meters and Measures
  - A Group of Related Business Measures
• Modeling Dimensions
  o Adding Dimensions from Qualifiers
  o Dimension Hierarchy
  o Refining the Dimensions
  o Completing the Dimensions
• More about Meters and Measures
  o Granularity and the Meter
  o Granularity and the Measures
  o Completing the Meter
• Model Verification
  o Testing the Model
• Logical Modeling Summary
  o Process Review

Module Four
From Logical Model to Star Schema

• Star Schema Dimensions
  o Naming the Dimensions
  o Modeling Dimension Tables
  o Defining Dimension Table Keys
• Star Schema Fact Tables
  o Modeling the Fact Table
  o Defining the Fact Table Key
  o Supporting Calculated Measures
  o Semi-Additive and Non-Additive Facts
• Star Schema Design Challenges
  o Slowly Changing Dimensions
  o Degenerate Dimensions
  o Junk Dimensions
  o Difficult Situations
• Modeling Process Summary
  o From Business Requirements to Star Schema

Module Five
Dimensional Data and Business Analysis

• Delivering Business Value
  o Data Enabled Business Analysis
  o Collecting, Analyzing, and Using Business Metrics
• Effective Dimensional Modeling
  o Critical Success Factors
  o Mistakes to Avoid
  o References and Learning Resources