Module 1 - Business Intelligence and Analytics Architecture Concepts

- Architecture Defined
  - What is Architecture?
- BI and Analytics Defined
  - Business Intelligence
  - Business Analytics
  - Shared Goals and Resources
- Architecture in the BI and Analytics Lifecycle
  - Iterative Implementation
  - Incremental Delivery
  - The Role of Architecture
- Architecture Frameworks
  - Zachman Framework
  - Framework for BI and Analytics Architecture

Module 2 - Architecting Business Capabilities

- Business Architecture Concepts
  - Framework for Business Architecture
- Business Performance
  - Definition and Concepts
  - Performance Management
  - Key Performance Indicators
- Business Stakeholders
  - Responsibilities, Roles, and Interest
- Business Processes
  - Process Concepts
- Business Rules
  - Assertions and Constraints
- Business Information
  - Information Uses
- How Business Architecture Fits In
  - Align Investments with Business Goals
  - Business Architecture Purpose

Module 3 - Architecting Organizations

- Organizational Architecture Concepts
  - Framework for Organizational Architecture
- People
  - Aligning with the Business
  - Organizational Models
  - Roles and Capabilities
  - Challenges
• Purpose
  o From Goals to Results
  o Balancing Centralization with Self-Service

• Process
  o Action and Information
  o Self-Service Development and Governance

• Structure
  o Connecting People

• How Organizational Architecture Fits In
  o Organizational Fit

Module 4 - Architecting Data and Integration
• Data and Integration Architecture Concepts
  o Framework for Data and Integration Architecture

• Describing Data
  o Data Abstraction
  o Data Taxonomy
  o Data Structures
  o Metadata

• Collection and Storage
  o Diversity of Sources
  o Bringing Data into the Business
  o Structures, Locations, Technologies
  o Data Lakes

• Data Integration
  o Integrating Information
  o Data Integration Hubs
  o Data Warehouse Architecture
  o Hybrid Architectures
  o Virtual Integration
  o Analytics Sandboxes

• Access and Delivery
  o Retrieving Data
  o Data Consumers

• How Data & Integration Architecture Fits In
  o Integrated Information Fit

Module 5 - Architecting Process
• Process Architecture Concepts
  o Framework for Process Architecture

• Planning
  o Priorities and Resources

• Development
  o Repeatable Processes
  o Matching Method to Product
  o Matching Control to Scope
  o Matching Process to Knowledge
• Operations
  o Production Data Management
  o Running Production Systems
• Products and Services
  o Consumers and Applications
  o Enterprise and Ad-Hoc Reporting
  o OLAP
  o Scorecards and Dashboards
  o Analytic Models
  o Data Visualization
  o Embedded Solutions
• Data Governance
  o Data Governance Defined
  o Data Stewardship and Curation
  o Data Quality Management
• How Process Architecture Fits In
  o Process Fit

Module 6 - Architecting Technology Platforms
• Technology Architecture Concepts
  o Business Intelligence and Analytics Technology Stack
• Platforms
  o Networks and Servers
  o Vendor-Centric Versus Best of Breed
• Servers
  o Many Options
• Data Sources
  o Batch, Event, Streaming
• Databases and Storage
  o RDBMS, Hadoop, Nonrelational
  o Direct Attached, Solid State, SAN, Cloud Storage
• Integration
  o Integration Tools
• Business Analytics Technology
  o A Variety of Tools
  o Data Preparation, Discovery, Blending
• Business Intelligence Technology
  o Variety of BI Tools
• Data Visualization
  o Presenting Compelling Data Stories
• Data Management
  o Profiling, Quality, Metadata, Governance
• How Technology Architecture Fits In
  o Technology Fit

Module 7 - Summary and Conclusion
• Tying It All Together
  o Harmonizing the Viewpoints