

Module 1: Big Data and Business Case

- What is Big Data? – Creating a definition
- What will it solve? – Potential solutions for an organization (this will be specific for onsite courses)
- Business Users and Big Data
 - o Understanding Roles and Skills – What does the business user bring to the table? Why should IT look to getting the business users own and drive the initiative?
 - o Business User Ownership – What does this entail?
 - o Challenges – Issues and Risks
- Building the Business Case
 - o Components of Big Data Business Case
 - o How to build the Appropriate Business Case
- Next Generation of Business Intelligence
 - o Analytics and Metrics – What do we derive new?
 - o Visualization Requirements – What are the changes and associated challenges?
 - o Mashups – Understanding multi-dimensional data management. Metadata is critical and why?

Module 2: Semantics and Ontologies

- Introduction to Semantic Frameworks – Future of Visualization and Analytics
- Understanding Semantic integration for Big Data – Where and How? Business Benefits.
- Using Ontologies for Metadata Management – Case Study
- Managing Business Rules for Processing - Case Study

Module 3: Big Data and the Data Warehouse

- The New Landscape
- What Can We Solve
- How to Assess and Manage Data For Today and Future
- Technology overview
 - o Hadoop, NoSQL, Cassandra, Big Query, Drill, Redshift, AWS (S3, EC2)
 - o Programming with MapReduce
 - o Understanding analytical requirements

Module 4: Self-Service Discovery Platforms

- Challenges of Data Management and Processing
- MDM, Metadata and More – Have we moved over this?

Module 5: Workloads

- Data Management
- Infrastructure Limitations

Module 6: Next-Generation Data Warehouse

- Solution architectures
 - o The three s's: scalability, sustainability, and stability
- People skills
- Critical success factors

Module 7: Big Data Road map

- Building A Road map
- Risks and Mitigations
- Business Driven Objectives
- Solving A Million Dollar Puzzle
- Readyng The Organization