



Data Quality Fundamentals

by David Wells



Module 0. About the Course (5 min)

Module 1. Quality Basics (30 min)

- *Quality Defined*
 - What is Quality
 - What isn't Quality
 - Quality vs. Qualities
- *Quality and Defects*
 - Defect Defined
 - Sources of Defects
 - Responding to Defects
 - Process Improvement
- *Quality Economics*
 - Cost of Quality
 - Cost of Defects
 - Cost of Quality Management

Module 2. Quality Management (93 min)

- *Quality Management Practices*
 - Quality Control
 - Quality Assurance
 - Quality Improvement
- *Quality Management Gurus*
- *Quality Management Methodologies*
 - Statistical Process Control
 - Total Quality Management
 - Six Sigma
- *Related Disciplines*
 - Theory of Constraints
 - Lean Manufacturing
 - Root Cause Analysis
 - Business Process Reengineering
 - Kaizen
- *Measurement and Standards*
 - Quality Management Systems
 - ISO 9000
 - ISO 8000
 - Common Quality Measures, Indicators, and Metrics

Module 3. Data Quality Basics (45 min)

- *Data Quality Defined*
 - Defect Free
 - Conforming to Specifications
 - Suited to Purpose
 - Meet Customer Expectations
- *Data and Purpose*
 - Business Transactions
 - Business Reporting
 - Audit Trail



DQ-01: Data Quality Fundamentals

- Business Analysis
- Business Measurement
- Prediction and Forecasting
- Decision Making
- Discovery and Learning
- *Dimensions of Data Quality*
 - Content and Quality
 - Structure and Quality
 - Time and Quality
 - Business and Quality
 - Usage and Quality
 - Presentation and Quality

Module 4. Data Quality Management (87min)

- *Data Quality Processes*
 - Data Profiling
 - Data Quality Assessment
 - Data Cleansing
- *Data Quality Techniques*
 - Procedures Vs. Rules
 - Procedural Data
 - Rule-Based Data Quality
- *Data Quality and Big Data*
 - Judging Quality of Big Data
 - A Framework to Judge Quality of Big Data
 - Data Processing and Data Usefulness
 - Data Processing and Characteristics
 - Big Data Quality and Data Analysis
 - Aligned with the Analytics Lifecycle
- *Data Quality Tools and Technology*
 - Technology Overview
 - Using Data Quality Technology
- *Data Quality Projects*
 - Common Data Quality Projects
 - Assessment Projects
 - Data Cleansing Projects
 - Process Improvement Projects
- *Building-In Data Quality*
 - Data Quality and System Architecture
 - Data Quality in IT Projects
 - Application Development Projects
 - Data Conversion and Migration Projects
 - Data Warehousing Projects
 - Business Analytics Projects
- *Data Quality Organizations*
 - Data Governance
 - Data Stewardship
 - Data Quality Programs
 - Data Quality Profession