Business Intelligence Education

Online Education • Certification • Enterprise Solutions

- Fundamentals of Business Intelligence
- BI Program and Project Management
- BI Requirements Gathering and Management
- Fundamentals of Predictive Analytics
- Data Warehousing Fundamentals
- Understanding and Evaluating the BI Platform
- Assessing Business Intelligence Operations
- Root Cause Analysis
- Big Data Fundamentals
- Building and Operating a Data Warehouse
- Data Mining Concepts and Techniques
- Beyond Business Intelligence
Business Intelligence (BI) is a core competency of smart business. It encompasses all of the methods, processes, techniques, and technologies that are needed to enable business to learn from the past and shape the future. The essence of BI is intelligent goal setting and goal achievement. BI connects people with data and information, making it possible for decision-makers to access, analyze, and act on information. Information and analysis are essential competencies for strategy, direction setting, planning, problem solving, management, and operations.

The impact of BI is substantial, but scope and complexity of BI systems is equally significant. The BI stack encompasses technology platforms, data integration, data management, reporting, analysis, business performance management, business analytics, and decision sciences. Putting the pieces together in the right ways – building, operating, using, and evolving BI systems – is a complex undertaking that involves many people and many skills.

WHAT OUR CUSTOMERS ARE SAYING

“The course instructors were very insightful, and were very knowledgeable.”

I found the courses to be very well designed; they were intellectually stimulating and challenging, but the workload was manageable. The course instructors were very insightful, and were very knowledgeable with the great hands-on experience and provided interesting real life examples.

Marina Severinovskaya, CIMP Ex - Data Governance, CIMP - Data Quality, MDM, IM Foundations, USA
Fundamentals of Business Intelligence  
**Instructor:** Mark Peco  
In this 5.5-hour course you will learn basic terminology, concepts, purpose and capabilities of BI.

BI Program and Project Management  
**Instructor:** Jonathan Geiger  
This 4.5-hour course addresses management aspects of both BI programs and projects.

BI Requirements Gathering and Management  
**Instructor:** Jonathan Geiger  
This 3-hour online course explores various aspects of business intelligence requirements gathering and management.

Fundamentals of Predictive Analytics  
**Instructor:** Eric Siegel  
This 5-hour online course goes from fundamentals and best practices to hands-on discussion of predictive analytics.

Data Warehousing Fundamentals  
**Instructor:** Mark Peco  
This 5.5-hour course presents a holistic view of data warehousing components, concepts, and definitions.

Understanding and Evaluating the BI Platform  
**Instructor:** Cindi Howson  
This 5-hour course discusses capabilities of the main modules of a BI platform and offers a methodology for evaluating its core.

Assessing Business Intelligence Operations  
**Instructor:** Dorothy Miller  
In this 4-hour course you will learn a step-by-step approach to assessing BI operations based on the Business Intelligence Capability Maturity Model.

Root Cause Analysis  
**Instructor:** Dave Wells  
This 4-hour course shows you the art and science of knowing why, and to learn to apply linear thinking, lateral thinking, systems thinking, and critical thinking.

Big Data Fundamentals  
**Instructor:** William McKnight, Jake Dolezal  
This 3.5 hour course will help you make the most of big data and make the best choices to ensure information remains an unparalleled corporate asset.

Building and Operating a Data Warehouse  
**Instructor:** Mark Peco  
This 4.5-hour course re-define the scope of the “modern” data warehouse and discusses design approaches, development, testing and quality management techniques.

Data Mining Concepts & Techniques  
**Instructor:** Deanne Larson  
This 3-hour online course will give insight into the data mining process, explain algorithms, and cover how to match the right models to the right problems.

Beyond Business Intelligence  
**Instructor:** Barry Devlin  
This 3-hour course sets the stage to move beyond Business Intelligence – not to replace BI but to expand, extend, and complement with capabilities that move to the next generation of information processing.

Full course descriptions start on page 7.
CIMP: Demonstrate Mastery. Achieve Success.

Certification is an important tool for job seekers and for employers seeking to hire the most qualified people. eLearningCurve offers a robust certification program, Certified Information Management Professional (CIMP) that builds upon education to certify knowledge and understanding of information management.

The CIMP Business Intelligence designation makes a clear statement that you have learned from the industry leaders and have demonstrated thorough understanding of business intelligence by passing several challenging exams.

For the true experts and standard bearers in the industry we offer the second level of CIMP certification - CIMP Ex. To earn the CIMP Ex designation you must demonstrate a combination of great Expertise, Experience, and Excellence.

WHAT SETS CIMP APART?

Rigorous exam system: We go beyond the basics. Rather than testing for knowledge that any industry professional should know, CIMP exams test an in-depth knowledge, comprehensive understanding, and ability to apply various concepts to a problem. You can be proud of your achievement of the CIMP designation, and hiring managers can be sure they are getting a highly knowledgeable employee.

Education to support certification: We believe that the best way to ensure success is to combine meaningful industry experience with thorough academic study. To that end, CIMP exams are aligned with our courses, developed and taught by top industry educators and professionals.

Designed with busy, working professionals in mind: No time-consuming or costly travel is required to complete coursework or to take your CIMP examinations. All courses and exams are available online. All that’s required of candidates is an internet connection and the desire to demonstrate mastery of data governance topics and achieve success.

HOW DO I ENROLL?

The most convenient and cost-efficient method to enroll in the CIMP program is with one of our Education Packages. Each package includes all courses and exams necessary to earn CIMP or CIMP Ex. Alternatively, you can enroll in courses one at a time.

For more information about CIMP, including customer stories on the Web visit http://ecm.elearningcurve.com.
ENTERPRISE SOLUTIONS

Today more than ever companies are watching expenses and looking for ways to streamline processes, make training convenient, and create a consistent, scalable learning environment.

eLearningCurve Enterprise is a flexible, convenient, and cost-effective way to train your employees and ensure that all team members have access to BI training they need when they need it. Whether your team or department work in the same office, or are on the other side of the world from each other, you can train them on time and on budget with eLearningCurve Enterprise.

Why eLearningCurve Enterprise?

➢ Comprehensive educational solution from a single provider
➢ Employees can take the courses they need when they need them
➢ Ensure all team members are trained to the same high standard
➢ Train employees no matter what their geographic location
➢ Employ a fully scalable education solution
➢ Minimize disruption to the business
➢ Maximize your employee training ROI
➢ Achieve 100% information comprehension
➢ Get "live" time with our instructors
➢ Stretch your training budget
➢ Get solutions for your specific needs

When you become an Enterprise customer we:

➢ Work with you to develop educational programs for different roles, positions, teams, departments
➢ Manage and track enrollment of all students in online classes and CIMP exams
➢ Track and report educational progress for each student
➢ Work with you to meet any specific educational needs, including:
  o Organize question and answer meetings (via Webinar) with course instructors for groups of students who complete online courses
  o Organize onsite sessions when appropriate, often for senior management.
  o Prioritize new course development, or customize existing courses, per customer needs
  o Create custom instances of our Learning Management System to reflect customer branding
  o Mount our online courses on the customer's Learning Management System
eLearningCurve Enterprise Benefits

PARTNERSHIP: Comprehensive educational solution from a single provider.
eLearningCurve will be your educational "partner-for-life" providing all employees with continuous information management education they need over the course of their careers. You can be sure that all employees, including new hires and transfers, come up to speed quickly and learn from a common state-of-the-art set of courses.

FLEXIBILITY: Employees can take the courses they need when they need them.
Educational needs vary from employee to employee and project to project. eLearningCurve’s flexible program allows your employees to take the courses they need when they need them to best suit their role, projects, backgrounds or interests.

CONSISTENCY: Ensure all team members are trained to the same high standard.
Train your existing team, and set up courses for new hires and transfers. Consider CIMP exams to verify that your employees utilize the same methodology, techniques, and terminology.

SCALABILITY: Select an Education Partner who truly understands scalability.
eLearningCurve Enterprise is 100% scalable. Roll out to a few employees, or your entire organization. If your team or department grows, it’s no problem. Our solution can quickly and effortlessly accommodate groups of all sizes, even if they are geographically dispersed.

BREADTH: Acquire comprehensive education and certification.
We offer more than just a collection of courses, we offer information management education. Whether its data quality, data governance, MDM or another information management discipline or function we have you covered with a comprehensive set of courses, exams, and certification programs designed to impart knowledge, test understanding, and validate learning.

LOCATION: Train employees no matter what their geographic location.
Overcome geographical barriers to training. With eLearningCurve Enterprise you can train your entire team whether they are in the same office, or on the opposite sides of the world. Everyone can access our online courses from any place at any time.

LOGISTICS: Minimize disruption to the business.
It’s not realistic for an entire department to take time off en masse for training. eLearningCurve’s online format allows employees to study from their office or home, allocate full training days, or study an hour a day during lunch breaks.

ROI: Maximize your employee training ROI.
No need to worry about paying for flights, hotels and other travel expenses. 100% of what you spend goes towards learning, thus achieving top quality education at a fraction of the cost of in-person training.

RESULTS: Achieve 100% information comprehension.
Learn from top industry experts in data quality, data governance, master data management, data modeling, data warehousing, and business intelligence. Study at your own pace, listen to the material many times, and test your knowledge through CIMP certification exams.

SAVINGS: Stretch your training budget.
We offer various pricing options including volume discounts, pay-as-you-go model with increasing discounts, and other alternatives. We try to understand your needs and budget constraints, and meet them in the best way possible.

"LIVE" INTERACTION: Spend time with our instructors.
Arrange "live" Webinar sessions with the leading experts, practitioners, and educators, or purchase online-onsite training combination packages and get access to our education both online and "live" on-site.

CUSTOMIZATION: Get solutions for your specific needs.
Our Learning Management System can be customized to reflect your company’s branding or we can mount our courses on your corporate LMS.
Fundamentals of Business Intelligence
Instructor: Mark Peco
Duration: 5 hours, 40 minutes

The term Business Intelligence is not well understood in the industry and is used inconsistently by many IT and business professionals alike. Although the term was defined in the mid 1990’s, the meaning of Business Intelligence continues to evolve as practitioners learn more about its capabilities and challenges.

This online training course introduces a “holistic” view of Business Intelligence and presents it as a complex system composed of many sub-systems that must be aligned and work together to produce the desired business results. The real success of BI within an organization can only be achieved if a holistic understanding is developed that shapes how the various components are designed and implemented. In addition to the extensive overview, the course makes Business Intelligence real and tangible by illustrating the concepts, principles, and practices using a detailed case study.

You will learn:
- Business Intelligence concepts and terminology
- The purpose and capabilities of successful BI and how value is actually generated within organizations
- How people, information, technology and business objectives are all critical components of BI success
- The common challenges and risks encountered in BI implementations
- How to utilize Systems Thinking concepts to describe BI holistically

This course is geared towards:
- Business Managers and Executives
- Technology Managers and Executives
- Business Analysts
- Business Measurement and Performance Analysts
- IT Analysts and Developers
- Data Management Analysts
- Technology and Business Architects
- BI Program Managers and Team Members
- Anyone with an interest in understanding the capabilities, opportunities and challenges offered by Business Intelligence

Course Outline

About the Course (9 min)

Introductory Concepts (73 min)
- Definitions
- System
- Architecture
- Systems View of Business Intelligence

Generating Business Value (70 min)
- Introduction
- The Business System
- The Decision Making System
- The Participation System
- The Work Execution System
- Case Study

Monitoring and Learning - Part I (60 min)
- Introduction
- The Information System
- The Measurement System

Monitoring and Learning - Part II (53 min)
- The Analytics System
- The Technology System
- Case Study Continued

Leadership and Control (40 min)
- Introduction
- The Stakeholder System
- The Governance System
- Case Study Continued

Putting the Pieces Together (34 min)
- The Business Intelligence System
- Summary

“I was likely going to make the #1 mistake of focusing in on the technology skills and capabilities before making the business case properly. This course helped me reframe my approach.”

—Sean Keesler, USA
Managing business intelligence (BI) initiatives is very challenging. Business intelligence should be approached as a program, but that does not eliminate the need to have projects within that program. This online training course addresses many management aspects of both BI programs and projects.

The course begins with a description of the basic differences between traditional and BI initiatives and between programs and projects. Key business intelligence roles are then described. In addition to a basic definition of each role, information is provided about the required traits and skills, staffing considerations, key activities performed by the person filling the role, and key challenges faced by the person.

This course also describes BI program and project activities. These are divided into the BI program and project planning activities, the BI program and project execution activities, and the BI program sustenance activities. Descriptions are provided for the activities, with a major emphasis on the implications for managing the activities.

You will learn:
- The differences between business intelligence and traditional initiatives and between program and project attributes as they apply to BI
- How to staff the various BI program and project roles, with an understanding of what they are, important traits and skills, staffing considerations, key activities and challenges
- The major BI-specific program and project planning, execution, and sustenance activities and key management considerations for each.

This course is geared towards:
- Business Intelligence leaders
- Key stakeholders
- Team members desiring a greater understanding of the overall environment
- Those with a basic understanding of business intelligence. No technical knowledge is needed

Course Outline

About the Course (6 min)

Introduction (44 min)
- BI and Traditional Initiatives Difference
- Program and Project Relationship
- BI Management Roles

Roles and Responsibilities (94 min)
- Role Definition Importance
- Major Program Roles
- Steering Committee
- Program Manager
- Change Agent
- Data Steward
- Architect
- Other Program Roles
- Major Project Roles
- Business Sponsor
- Project Manager
- Business Analyst
- Data Analyst
- Database Administrator
- Acquisition Developer
- Delivery Developer
- Business User
- Business Intelligence Competency Center

Planning Management (58 min)
- Assessment
- Strategy and Development
- BI Program Activities: Governance
- Planning
- Scope Definition
- Plan Development

BI Execution Management (43 min)
- Data Modeling
- Infrastructure
- Oversight
- Requirements Gathering
- Data Modeling
- Data Acquisition
- Production Release
- General BI Project Management Activities

BI Sustenance Management (24 min)
- Usage Monitoring
- Benefits Recognition
- Demand Management
- Portfolio Management
- Maintenance and Enhancements
- Infrastructure Management
- Quality Management
- Quality Improvement
- Success Measurement
- Communication
BI Requirements Gathering and Management
Instructor: Jonathan Geiger
Duration: 3 hours

System developers recognize that the better requirements are defined, the more likely it is that the ultimate product will meet the business needs. Yet this area has been a problem ever since the first systems development projects were initiated. When requirements are not well-defined, the development efforts are often fraught with scope changes, budget over-runs, and dissatisfied business users.

Business intelligence brings with it some unique challenges with respect to requirements gathering, since the business community often cannot fully declare its needs in advance and the tolerance for long development efforts has dissipated.

This course explores various aspects of business intelligence requirements gathering and management. It begins with a description of different ways of looking at requirements. Specific requirements gathering techniques are then described along with information on when each is most applicable. Armed with gathering techniques, different types of requirements are then described, and potential questions to be asked for each type are provided. The course ends with a module on managing the requirements throughout the project, and beyond.

You will learn:
➢ Understand the importance of gathering a good set of requirements and the special challenges business intelligence efforts pose
➢ Understand different techniques for gathering requirements, and when each type best applies
➢ Know major types of requirements that need to be collected, and key questions that should be asked for each type.
➢ Know how to verify that the requirements are well-defined and traceable throughout the project evolution.

This course is geared towards:
➢ Business Intelligence leaders
➢ Business Intelligence key stakeholders
➢ Business intelligence team members seeking a greater understanding of the overall environment
➢ Participants should have a basic understanding of business intelligence. No technical knowledge is needed

Course Outline

About the Course (6 min)

Requirements Gathering Overview (29 min)
  o Introduction
  o Requirements Gathering Techniques
  o Gathering Requirements from Individuals
  o Gathering Requirements from Groups
  o Gathering Requirements by Examination
  o Challenges

Requirements Gathering Techniques (80 min)
  o Introduction
  o Requirements Definition
  o Requirements Gathering Challenges
  o Requirements Classifications
  o Requirement Gathering Techniques
  o Summary

Requirements Areas (53 min)
  o Introduction
  o Program vs. Project Requirements
  o Business Intelligence Capabilities
  o Technology
  o Business Application
  o Business Benefits
  o Data Content
  o Performance Constraints
  o Summary

Requirements Management (16 min)
  o Introduction
  o Documentation Requirements
  o Ensuring Traceability
  o Post Project Requirements Management
  o Summary
Fundamentals of Predictive Analytics
Instructors: Eric Siegel
Duration: 5 hours

Business metrics do a great job summarizing the past. But if you want to predict how customers will respond in the future, there is one place to turn -- predictive analytics. By learning from your abundant historical data, predictive analytics delivers something beyond standard business reports and sales forecasts: actionable predictions for each customer. These predictions encompass all channels, both online and off, foreseeing which customers will buy, click, respond, convert or cancel. If you predict it, you own it.

The customer predictions generated by predictive analytics deliver more relevant content to each customer, improving response rates, click rates, buying behavior, retention and overall profit. For online applications such as e-marketing and customer care recommendations, predictive analytics acts in real-time, dynamically selecting the ad, web content or cross-sell product each visitor is most likely to click on or respond to, according to that visitor’s profile.

This online training course goes from fundamentals and best practices to hands-on discussion of predictive analytics models and their applications.

You will learn:
- Applications: Business, marketing and web problems solved with predictive analytics
- The techniques, tips and pointers you need in order to run a successful predictive analytics and data mining initiative
- How to strategically position and tactically deploy predictive analytics and data mining
- How to bridge the prevalent gap between technical understanding and practical use
- How a predictive model works, how it’s created and what it looks like
- Evaluation: How well a predictive model works and how much revenue it generates
- Detailed case studies that demonstrate predictive analytics in action and make the concepts concrete
- Two tool demonstrations showing how predictive analytics really works

This course is geared towards:
- Managers. Project leaders, directors, CXOs, vice presidents, investors and decision makers of any kind involved with analytics, direct marketing or online marketing activities.
- Marketers. Personnel running or supporting direct marketing, response modeling, or online marketing who wish to improve response rates and increase campaign ROI for retention, up-sell and cross-sell.
- Technology experts. Analysts, data scientists, BI directors, developers, DBAs, data warehousing professionals, web analysts, and consultants who wish to extend their expertise to predictive analytics.

Course Outline

About the Course (10 min)

Introduction (56 min)
- Introduction to Predictive Analytics
- How It Works?
- Decision Trees
- Response Modeling

Applications and Data Requirements (76 min)
- Applications
- Attrition Modeling Examples
- Data Preparation

Predictive Modeling Methods (68 min)
- More on Decision Trees
- Other Modeling Methods
- Methods Comparison

Management and Deployment (63 min)
- Project Management
- Killer Application: Content Selection
- Case Study: Targeting Ads

Software Demonstrations (24 min)
Data Warehousing Fundamentals
Instructors: Mark Peco
Duration: 5 hours, 30 minutes

The primary purpose of data warehousing is to put raw data into an "analyzable state" and deliver data and information that is useful, relevant and accessible. Though data warehousing is a mature discipline, it continues to develop driven by new perspectives, innovative ideas, evolving technology and competitive business pressures.

There are many concepts and components to be understood, integrated, and collectively implemented for data warehousing success. Many organizations fail to understand and embrace the full breadth of these components – how they interact and how they change over time. Lack of understanding brings confusion, misalignment, and failure to realize full value from data warehousing investments.

This online training course presents a holistic view of data warehousing components, concepts, and definitions. From a systems-thinking perspective, you’ll see a framework that describes the building blocks and their interactions to generate real and measurable business value. The framework positions architecture as an essential foundation for a data warehousing system, then describes the five essential and enabling sub-systems of data warehousing.

You will learn:
➢ DW concepts and terminology
➢ The purpose and capabilities of successful DW and its roles in creating business value
➢ Roles and essential components of five critical sub-systems
➢ How the sub-systems interact to constitute a complete and cohesive DW system
➢ The common challenges and risks inherent in DW

This course is geared towards:
➢ DW teams who need to build a common foundation of concepts and terminology
➢ DW program and project managers
➢ Data warehouse architects
➢ Data warehouse designers and developers
➢ DW maintenance and support specialists
➢ Business and Data SMEs with data warehousing project roles and responsibilities
➢ Data Management Analysts
➢ Anyone who is new to data warehousing
➢ Anyone with an interest in the capabilities, opportunities and challenges of DW

Course Outline

About the Course (8 min)

Introduction to Data Warehousing (67 min)
➢ Fundamental Ideas
➢ Systems Concepts
➢ Architecture Considerations
➢ Systems View of Data Warehousing
➢ Data Warehousing System Review

Data Acquisition and Refinement (62 min)
➢ Getting Started
➢ Parts
➢ Exploration & Discovery System
➢ Refining & Integration System
➢ Transportation System

Data Provisioning and Retention (45 min)
➢ System Context
➢ Getting Started
➢ Parts
➢ Storage & Packaging System
➢ Technology System
➢ Inventory System

Information Delivery & Consumption (35 min)
➢ System Context
➢ Getting Started
➢ Parts
➢ Usage System
➢ Delivery System
➢ Content Quality System

Building and Development (58 min)
➢ System Context
➢ Getting Started
➢ Parts
➢ Participation System
➢ Construction System
➢ Asset & Process Quality System

Leadership and Control (34 min)
➢ System Context
➢ Getting Started
➢ Parts
➢ Stakeholder System
➢ Governance System

Putting the Pieces Together (24 min)
➢ Perspective & Alignment
➢ Data Warehousing System
➢ Course Summary
Understanding and Evaluating the BI Platform
Instructor: Cindi Howson
Duration: 5 hours

As the face for the data warehouse, the BI tool is the most important component to business users. Select a great tool that facilitates insights and users will embrace business intelligence. Fail to manage your BI tool portfolio, and you will waste money, frustrate users, and never achieve the full potential of self-service BI.

Understanding strategic and functional differences between solutions from "Big 4" and BI pure-plays is critical to developing a successful BI tool strategy. The first part of this online training course highlights recent events, industry trends, and challenges. The course includes a discussion of standardization approaches and how to position particular BI tool modules, with a view of deploying the right tool for the right user. You will review a methodology for making better BI investments and evaluating core features of a BI platform. Each of the main modules of a BI platform is defined along with what capabilities to look for. Specific product examples are interwoven for illustrative purposes.

You will learn to:
➢ An overview of the business intelligence market and vendors’ positions
➢ How to manage your BI tool portfolio
➢ Pricing and packaging policies
➢ A framework for evaluating business intelligence vendors and suites
➢ Key modules within a BI platform and which deliver self-service BI
➢ Key capabilities to look for within each module, including:
  o business or ad hoc query
  o production reporting
  o visual data discovery
  o dashboards
  o OLAP and in-memory
  o architecture and administration

This course is geared towards:
➢ BI and DW project sponsors
➢ BI directors
➢ Business analysts
➢ BI application owners

Course Outline

About the Course (10 min)

Strategic Considerations (42 min)
  o Major BI Events and Industry Trends
  o Challenges in BI
  o Financials & Market Strategy

Tool Segments & Portfolio Mgmt (35 min)
  o Which Users Need Which Tools?
  o BI Modules
  o Self-Service BI Continuum
  o BI Buying Approaches

Pricing, Packaging, & Eval. Process (49 min)
  o Pricing, Packaging and Cost of Ownership
  o Evaluation Process

Business or Ad-Hoc Query (21 min)
  o Business Query Modules
  o Business View
  o Prompting
  o Support for Multiple Data Sources

Reporting (30 min)
  o Production Reporting Modules
  o Report Structure and Layout
  o Charting Capabilities
  o Report Interactivities & Navigation Features
  o Other Reporting Evaluation Criteria
  o Spectrum of Reporting Tools

OLAP and In-Memory (32 min)
  o Online Analytical Processing
  o In-Memory Analytics
  o OLAP Viewer

Dashboards & Visual Data Discovery (48 min)
  o Definition
  o Dashboards Vs. Scorecards
  o Dashboard Vs. Visual Discovery
  o Dashboard Product Segments
  o Key Dashboard Features to Evaluate
  o Dashboard Layout and Presentation
  o Dashboard Consumption: Interactivity
  o Dashboard Design
  o Visual Data Discovery

Architecture & Administration (18 min)
  o Architecture Criteria
  o Scalability
  o Security
  o Business View Administration
  o Usage Monitoring
  o Session Management
  o Other Administration Features
Assessing Business Intelligence Operations
Instructor: Dorothy Miller
Duration: 4 hours

Managing Business Intelligence assets has become one of the most critical responsibilities of Business and Information Technology managers today. Effective management requires assessment of operational strengths and weaknesses as a first step.

This on-line training class defines a structure and step-by-step approach to assessing Business Intelligence operations. It provides a foundation for understanding, analyzing and grading the design, development and implementation of BI products for an organization and teaches you how to apply the assessment methods and tools to your own BI operations.

The foundation for the assessment of BI operations is the Business Intelligence Capability Maturity Model, which identifies and describes key assessment features, assessment factors (KPI’s), rulers for measurement, as well as assessment principles, practices and methods. In this course, each component of the model is fully defined and a set of evaluation and assessment tools are described.

You will learn:
- The basic structure, components and flow of business intelligence operations
- How to prepare a foundation for decreasing costs and improving the quality of BI
- The basic concepts, goals, principles, and practices for assessing business intelligence operations
- How to understand and apply BI Capability Maturity Model in assessing the strengths and weaknesses of your organization
- How to assess and rate your organization against standardized measures for business intelligence performance

This course is geared towards those who:
- Need to understand and improve business intelligence operations
- Analyze and assess business intelligence operations
- Manage business intelligence operations
- Provide executive level oversight of business intelligence for an organization
- Manage the business intelligence investment(s) for the organization
- Are consultants and others who work with BI professionals and managers who need to understand how to improve business intelligence for the organization

Course Outline

About the Course (9 min)

Introduction (41 min)
- Introduction
- Why Conduct a BI Operations Assessment?
- Business Intelligence Capability Maturity Model for Assessment (BI-CMM/A)
- Discussion

Assessment Concepts, Tools, & Practices (57 min)
- Introduction
- What to Assess?
- Performance Measurement: Key Performance Indicators
- Measurement Rulers
- The Assessment Process
- Discussion

The Assessment Program (49 min)
- Overview
- Tips and Guidelines
- Step 1: Obtain Agreement for Assessment
- Step 2: Select a Leader and Team
- Step 3: Plan Assessment
- Step 4: Conduct the Assessment: The process
- Step 5: Compile Results
- Step 6: Rank Organization
- Step 7: Communicate Results
- Discussion

Case Study (67 min)
- Introduction
- Background
- Start Up
- Choosing Pilot Assessment Target
- Planning the Pilot
- Conducting the Assessment
- Scorecarding
- Rating the Pilot Targets

Case Study Wrap Up (22 min)
- Wrap Up & Communications
- Course Summary
- Additional Support
Root Cause Analysis
Instructor: Dave Wells
Duration: 3 hours, 45 minutes

Understanding why things happen is a fundamental management skill. For anyone who is challenged to manage data quality, business processes, or people and organizations, finding root causes is an essential skill. Understanding why is the key to knowing what to do – the core of sound decision making. But cause-and-effect relationships are elusive. Real causes are often difficult to find so we settle for easy answers. This leads to fixing symptoms rather than to solving problems, and to little or no gain where opportunity is abundant.

Root cause analysis is the alternative to easy answers. Looking beyond the apparent and obvious to find real causes brings insight and sows the seeds of foresight. Through this online training course you will discover the art and science of knowing why. Learn to apply linear thinking, lateral thinking, systems thinking, and critical thinking – independently and in combination – to get to the core of even the most vexing problems.

You will learn to:
- Recognize and avoid logical fallacies
- Identify and distinguish between correlation, coincidence, and cause
- Perform fast and light causal analysis using the “5 whys” technique
- Explore linear cause-and-effect chains with fishbone diagramming
- Describe complex cause-effect networks with causal loop models
- Challenge and refine linear and loop models with lateral and critical thinking techniques
- Apply root cause analysis to effectively manage quality, processes, and organizations

This course is geared towards:
- Data quality professionals and practitioners
- Quality management and quality improvement professionals
- Business analysts and business analytics professionals
- Managers and problem-solvers seeking insight and confidence in decision making
- Anyone responsible to manage data, information, people, process, or technology

Course Outline

About the Course (5 min)

The Nature of Cause and Effect (23 min)
- Definitions and Distinctions
- A First Look at Cause and Effect Models
- Cause and Effect Misconceptions

RCA Concepts and Principles (22 Min)
- The Purpose of RCA
- The Process of RCA
- Practical Application

Basic Causal Modeling Techniques (55 min)
- The Five Why's Method
- Fishbone Diagramming
- Five Why's and Fishbone Together

Complex Causal Modeling Techniques (61 min)
- Systems Thinking Concepts
- Causal Loop Models
- System Archetypes

Verifying Cause & Effect Conclusions (57 min)
- Nonsense and Logical Fallacies
- Fallacies and Thinking Styles
- Critical Thinking
- Lateral Thinking
- Course Summary
- Final Thoughts

“I loved the presentation and how David Wells provided the information. When I first looked at the power point slide deck, I was thinking... oh my this is going to take some studying. I was pleasantly surprised with how I was able to follow along.”
—Donna Graves, USA
Big Data Fundamentals
Instructor: William McKnight & Jake Dolezal
Duration: 3.5 hours

Big data has gone mainstream. It reaches well beyond the initial group of Silicon Valley “new economy” tech companies and the new media companies that helped launch the industry. The big data adoption landscape has expanded to include automakers, big finance, big insurance companies, telecommunications, healthcare companies and big retailers. Big data is past the hype phase and adoption is accelerating, but success is not a given and challenges remain.

This informative technical general session is full of the “need to know” for anyone involved in an enterprise data landscape. Learn from experienced enterprise information strategists with real project experience about the path that big data is on, the obstacles along the path, and how to confidently join the big data revolution. Learn the players in the technology landscape and the ideal workloads for big data in enterprises. Learn where big data adds value to an existing enterprise information strategy and how to get the projects started and dropping the “not in production” label.

This 3.5-hour online course addresses the technical community as well as the user community, providing guidance on how to penetrate and benefit the enterprise. This practical session will help you make the most of big data and make the best choices to ensure information remains an unparalleled corporate asset.

You will learn:
➢ A workable definition of big data so you know it when you see it
➢ Drivers for big data
➢ Big data in the enterprise
➢ The Hadoop framework for analytical big data
➢ NoSQL and operational big data
➢ An overall information architecture with big data

This course is geared towards:
➢ Business and Data Analysts
➢ BI Architects and BI Developers
➢ Data Architects
➢ Data Integrators
➢ Analytics Developers and Consumers
➢ Anyone who needs to understand the business and technical implications of Big Data

Course Outline

About the Course (8 min)

Big Data Definition (34 mins)
➢ Big Data Introduction
➢ Big Data Technology
➢ Enablers for Big Data

Big Data Drivers (28 mins)
➢ Value Density of Data
➢ Before Data was Big…
➢ Once Big Data Grew, Value was Realized
➢ Data is too Valuable to Discard
➢ Data is too Valuable to Ignore
➢ Focus Before Big Data
➢ Focus After Big Data
➢ Performance/Workload Optimization
➢ Cost of Storage
➢ Other Cost Drivers
➢ Analytic Need
➢ Implication for IT Skills

Big Data in the Enterprise (21 mins)
➢ The Great Database Thaw
➢ Data Access in the Modern Enterprise
➢ Marz’s Lambda Architecture
➢ Row vs. Columnar Stores
➢ In-Memory
➢ Big Data & Analytics
➢ Leveraging Hadoop for Analytics

Hadoop Ecosystem (40 mins)
➢ Hadoop Overview
➢ Hadoop Distributions
➢ Hadoop Framework

NoSQL (31 mins)
➢ NoSQL “Schemaless” Data Modeling
➢ NoSQL Heartburn
➢ Key-Value Stores
➢ Document Oriented Database
➢ Graph Oriented Database
➢ Stream Processing Engines
➢ NewSQL

Enterprise Architecture with Big Data (45 mins)
➢ Modern Components of Information Architecture
➢ ETL with Big Data Systems
➢ Analytic Patterns with Hadoop
➢ Where Do We go from Here?
Building and Operating a Data Warehouse
Instructor: Mark Peco
Duration: 4.5 hours

For over twenty years, data warehouses have served organizations in the areas of data integration, provisioning, management, and information delivery. Use cases ranging from basic reporting to advanced analytics have been successfully implemented across a variety of industries by companies of many different sizes.

Due to rapid growth of non-traditional data sources, availability of new technologies and growing expectations of managers to compete on analytics, the traditional data warehouse is re-defined and presented within a broader modern context. A corporate data ecosystem is evolving and presents new opportunities for creating business capabilities that were not previously possible. Amidst these changes, the data warehouse continues to play foundational and integral roles within the expanding data landscape.

This 4.5 hour online course re-define the scope of the “modern” data warehouse. The need for planning and the role of architecture are described and clarified, followed by a discussion about the challenges related to gathering useful information requirements. This is followed by a discussion of design approaches, development, testing and quality management techniques.

You will learn:
- The components that define a data warehouse platform
- What trends impact the modern data warehouse
- To position the data warehouse platform in the big data era
- Architectural options and considerations
- Development options and approaches
- The requirements gathering process
- Necessary design activities
- How operations and service processes enable business capabilities

This course is geared towards:
- Data warehousing program and project managers
- Data warehouse architects
- Data scientists and analytics professionals
- Big Data practitioners
- Data warehouse designers and developers
- Data warehouse maintenance and support specialists

Course Outline

About the Course (8 min)

Introduction (54 min)
- Overview
- Data and Information
- The Modern Data Landscape
- Generating Information
- The Need for Metadata
- Defining the Data Warehouse
- Implementation Approaches

Planning and Architecture (71 min)
- Overview
- Implementation Planning
- Architecture Overview
- Requirements Analysis
- Information Requirements

Design and Development (73 min)
- Design Activities
- Design Decisions
- Design Example
- Development

Operations and Service Delivery (39 min)
- Overview
- Services
- Categories of Services
- Managing a Service Catalog
- Managing Performance
Data Mining Concepts and Techniques

Instructor: Deanne Larson  
Duration: 3 hours

Data mining originated primarily from researchers running into challenges posed by new data sets. Data mining is not a new area, but has re-emerged as data science because of new data sources such as Big Data. This course focuses on defining both data mining and data science and provides a review of the concepts, processes, and techniques used in each area.

This 3-hour online course will give you insight into the data mining process, explain models and algorithms, and give an understanding of how to match the right data mining models to the right problems.

You will learn:
- The definitions of data mining and data science
- The role of statistics in data mining
- Machine learning concepts
- To differentiate between supervised and unsupervised learning
- The data mining process
- How to conduct exploratory data analysis
- To identify data mining models and algorithms
- How to match the problem with the model
- Model validation techniques
- How to deploy data mining models

This course is geared towards:
- Analysts looking to gain foundational data mining knowledge
- Analysts looking to understand data mining models
- Analysts looking to apply the right data mining models to the right problem
- Attendees should have a basic understanding of undergraduate statistics, data types, databases, and data management concepts

Course Outline

About the Course (3 min)

Introduction to Data Mining (25 min)
- Module Overview
- What is Data Mining?
- Statistics in Data Mining
- Machine Learning
- Supervised Learning
- Unsupervised Learning

The Data Mining Process (24 min)
- Data Mining Framework
- Data Mining Approaches
- Data Mining Techniques
- Data Mining Process

Exploratory Data Analysis (29 min)
- Exploratory Data Analysis
- Data Profiling: Uncovering Structure
- Data Profiling: Types of Profiling
- Descriptive Statistics
- Results of Data Profiling and Descriptive Statistics
- Data Relationships
- Findings – Important Variables
- Visualization Techniques
- Outcomes and Interpretations
- Sampling Size
- Sample Quality
- Big Data Considerations
- Feature Selection
- EDA Checklist

Data Mining Models and Algorithms (71 min)
- Build the Model
- Anatomy of a Model
- What is a Classification Problem
- Classification
- Ensemble Methods
- Clustering
- Clustering Uses
- Association–Market Basket
- Association Rules
- Association Uses
- Application of Data Mining Models
- Model Selection

Model Validation Techniques (18 min)
- The Validation Process
- Fitting a Model
- Bias/Variance Tradeoff
- Regression – Mean Squared Error
- Linear Regression – Confidence and Prediction Intervals
- Logistic Regression – Significance Test
- Classification Accuracy
- Classification Accuracy – Other Measures
- Prediction Error Methods
- Hold-Out Cross Validation
- K-Fold Cross Validation Method

Module 6. Deploying Data Mining Tools (9 min)
- Overview
- Deploying Data Mining Models
- Course Summary Parts 1 & 2
- References
Beyond Business Intelligence

Instructor: Barry Devlin
Duration: 3 hours

Beyond Business Intelligence, the first course of the series Business Information – The Next Iteration, by Dr. Barry Devlin introduces new thinking about the nature of people, processes, and information and how they interact. The three are inseparable. People process information, and what they do with information is the thing that matters most.

Rethinking how we process information sets the stage to move beyond Business Intelligence – not to replace BI but to expand, extend, and complement with capabilities that move to the next generation of information processing. Considering experiences of the past, business pressures in the present, and technology trends that are shaping the future, Dr. Devlin describes a new architecture that responds to today’s information demands and is able to scale and adapt to the business needs of the future.

You will learn:
- How modern business innovation is driven entirely by technology
- A model to understand how modern business uses information
- The gaps between modern business needs and capabilities of traditional BI architecture
- A new architectural approach that is aligned to modern and future business needs

This course is geared towards:
- IT managers responsible for all aspects of information use and management
- IT and BI architects, planners, and designers
- Business people looking to obtain strategic value from information

Course Outline

About the Course (12 min)

Historical Perspective: Five Decades of Change (25 min)
- Why This Series of Courses?
- Decision Making Support – History
- Prehistory and the Rise of DSS
- Dawn and Classical Eras
- Modern Era
- The Intercognitive World
- Emergent Era
- 35-Years of Evolution of BI/Analytics Needs
- The World of Decision Making: Today and Into the Future

Modern Business Evolving (55 min)
- Module Overview and Topics
- Business Needs and Information Usage
- The Biz-tech Ecosystem
- The Simple Business Model
- Module Summary

Information Technology Emerging (71 min)
- Module Overview and Topics
- A Brief History of Decision Making Support
- Big Data and IoT: A Deeper Dive
- Cognitive Decision Making – a Brief Introduction
- Module Summary

Business Unintelligence Architecture Overview (29 min)
- Module Overview and Topics
- Conceptual Architecture
- Advantages and Challenges
- Logical Architecture
- Module Summary
- Course Summary
- Course Follow-on
OUR INSTRUCTORS

Jake Dolezal
Jake Dolezal has over 16-years’ experience in the Information Management field with expertise in business intelligence, analytics, data warehousing, statistics, data modeling and integration, data visualization, master data management, and data quality. Jake has experience across a broad array of industries, including: healthcare, education, government, manufacturing, engineering, hospitality and gaming. He is also the author of the book *I Survived Stats: A Less Frustrating Approach to Help Students Survive and Pass a Statistics Course* (forthcoming).

Barry Devlin
Dr. Barry Devlin is a founder of the data warehousing industry, defining its first architecture in 1985. A foremost authority on business intelligence (BI), big data and beyond, he is respected worldwide as a visionary and thought-leader in the evolving industry. Barry has authored two ground-breaking books: the classic “Data Warehouse—from Architecture to Implementation” and “Business unIntelligence—Insight and Innovation Beyond Analytics and Big Data” in 2013.

Jonathan Geiger
Jonathan Geiger has over forty years of management and hands-on experience in information management, including data warehousing, customer relationship management, quality assurance, data governance, application development and support, productivity management, and training. Mr. Geiger performs strategic consulting for companies in a variety of industries. Specifically, his strategic consulting includes assessments, program and project management, facilitation, business requirements analysis, architecture design, quality assurance, and data modeling.

Cindi Howson
Cindi is the founder of BI Scorecard®, a resource for in-depth BI product reviews, based on exclusive hands-on testing. Cindi advises clients on BI tool selections, managing their BI tool portfolio, and improving BI success. She works across industries and for both Fortune 500 and small to mid-sized businesses. She has been quoted in the Wall Street Journal, Irish Times, Forbes, and Business Week. Cindi speaks at conferences around the world.

Deanne Larson
Dr. Larson is an active practitioner and academic focusing on business intelligence and data warehousing with over 20 years of experience. She completed her doctorate in management in information technology leadership. She holds project management professional (PMP) and certified business intelligence professional (CBIP) certifications.

Dorothy Miller
Dorothy is president of Redstone360, which specializes in the management of business intelligence. Dorothy has over 30 years’ experience in business, finance and information technology. In addition to contributing to many industry publications, Dorothy has also authored three books on business intelligence.
William McKnight
William is president of McKnight Consulting Group, which includes service lines of Master Data Management, IT assessment, Big Data, Columnar Databases, Data Warehousing, and Business Intelligence. He functions as Strategist, Lead Enterprise Information Architect, and Program Manager for sites worldwide.

Mark Peco
Mark Peco is an experienced consultant, educator, practitioner and manager in the fields of Business Intelligence and Process Improvement. He provides vision and leadership to projects operating and creating solutions at the intersection of Business and Technology. Mark is actively involved with clients working in the areas of Strategy Development, Process Improvement, Data Management and Business Intelligence.

Eric Siegel
Eric Siegel, Ph.D., is a seasoned consultant in data mining and analytics, an acclaimed industry instructor, and an award-winning teacher of graduate-level courses in these areas. An expert in data mining and predictive analytics, Dr. Siegel served as a computer science professor at Columbia University, where he won the engineering school’s award for teaching undergraduate and graduate courses.

K-Y Su
K-Y Su is a freelance locational data analyst with analytical experience in a variety of sectors and subjects, primarily nonprofit, and an interest in providing location intelligence services for business. K-Y has performed GIS analysis for World, the Washington State Legislature and Department of Ecology, some environmental consulting firms, and several nonprofits and trade associations. K-Y has a BS in biochemistry and a certificate in GIS.

Dave Wells
Dave Wells is a consultant, teacher, and practitioner in the field of information management. He brings to every endeavor a unique and balanced perspective about the relationships of business and technology. This perspective ─refined through a career of more than thirty-five years that encompassed both business and technical roles─ helps to align business and information technology in the most effective ways. Dave is a frequent contributor to trade publications and is a co-author of the book BI Strategy: How to Create & Document.

George Williams
George Williams is a multi-disciplinary professional with nearly 30 years of experience as a Data Analyst, GIS Analyst, Geoscientist, and Project Manager. He currently works as a Data Program Manager with a prominent Marketing Data Management & Analytics firm in Seattle, WA. He has an educational background in Earth Sciences and Hazardous Materials Management along with 15 years of experience managing Geo-technical & Environmental Engineering projects.
eLearningCurve’s 3,000 students come from over 70 countries around the globe. Over 80% are enterprise customers—companies and governmental institutions who use our curriculum to educate many employees.

They range from smaller clients, or project teams, that enroll a handful or employees, to larger organizations that use our education as the backbone for their internal education programs for hundreds of employees. Our enterprise customers typically come from Fortune 500 and Global 1000 companies as well as government institutions in various countries. All major industries are represented – finance, insurance, oil, telecom, software development, consulting, government, industrial, etc…

Each pin on map the below represents a country where there are eLearningCurve students.
CUSTOMER STORIES

“**I would highly recommend eLearningCurve to anyone thinking of getting their certification in the data field**”

Having started the certification program with a very limited knowledge base in the area of data quality, I was a little intimidated and unsure of what to expect. My concerns were quickly alleviated by the quality of instructors and course materials and the superb delivery method of the classes. Classes in the curriculum built upon each other, giving you a great base in the topic and then continuing to build on that foundation. There were no "throwaway" classes in that principles were taught and reinforced as you progressed along your journey to certification.

I would highly recommend eLearningCurve to anyone thinking of getting their certification in the data field and to anyone looking for a greater understanding of the data profession. I could not be happier with the courses and knowledge that I gained through this program.

*Joseph Fagnoni, CIMP – Data Quality, Data Governance, USA*

“**The selection of classes available through eLearningCurve have provided me incredible insight and more information on best practices...**”

In Australia, it is not often you get the chance to study under international industry thought leaders and gurus. Actually, I misspeak, it is often. It is whenever you like thanks to eLearningCurve’s online delivery!

These days it is common place for professionals to learn tools and software but not focus on methodology. The selection of classes available through eLearningCurve have provided me incredible insight and more information on best practice and methodology than any other conference or training course I have attended thus far in my career. The material is challenging, thought provoking, and extremely informative. The tests require focus and understanding beyond the point of remembering the words said - they push you to apply the principles. You get plenty of time to access and review the material, so anyone can fit this in around their busy schedule.

*Stuart Brown, CIMP - Data Governance, Australia*

“**Very clear, well-structured, with interesting examples and based on extended practical experience.”**

After eLearningCurve courses, I have realized that in the last 3 years:

- We created data quality rules catalogue.
- We implemented our Error Monitors and few Change Monitors.
- We started to use data quality control in source, staging and target DB area.

But all these solutions could be initially designed much better with the knowledge, which I have received now with eLearningCurve.

The instructors and courses material are really of great value. Very clear, well-structured, with interesting examples and based on extended practical experience. I would certainly recommend the certification for any professional interested in gaining a better understanding of Data Governance and definitely for any data quality practitioner.

*Tatyana Loctionova, CIMP – Data Quality, Russia*
CONTACT US

Director, Enterprise Solutions: Arkady Maydanchik
arkadym@elearningcurve.com

Director, Marketing: Michelle Johnson
mjohnson@elearningcurve.com

Director, Education: Dave Wells
dwells@infocentric.org

Director, Technology: Varya Belyavskaya
admin@elearningcurve.com

Customer Support:
support@elearningcurve.com

Phone: 1-630-242-1659

Mailing Address: 305 Midwest Club Parkway, Oak Brook IL, 60523, USA

RESELLERS

Denmark
Right Training

Contact:
Jan Sørensen
+45 31 45 04 99
jms@righttraining.dk

South Africa and sub-Saharan Africa
Master Data

Contact:
Gary Allemann
+27 11 485 4856
gary@masterdata.co.za
### BUSINESS INTELLIGENCE COURSE PRICING

#### Packages

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#### Individual Courses

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#### Exams

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#### Enterprise Discounts

We offer discounts to Enterprise customers who purchase in bulk. Please contact us for more information.

#### About eLearningCurve

eLearningCurve offers comprehensive online education programs in various disciplines of information management. With eLearningCurve, you can take the courses you need when you need them from any place at any time. Study at your own pace, listen to the material many times, and test your knowledge through online exams to ensure maximum information comprehension and retention.

eLearningCurve also offers two robust certification programs: CIMP & CDS. Certified Information Management Professional (CIMP) builds upon education to certify knowledge and understanding of information management. Certified Data Steward (CDS) is a role-based certification designed for the fast growing data stewardship profession.

Finally, eLearningCurve’s Enterprise Program is a flexible, scalable, cost-effective solution for teams and enterprises.