Education Course Catalog 2017

Accelerate your success with the latest training in enterprise analytics, mobility, and identity intelligence.
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### MICROSTRATEGY 10 CERTIFICATIONS

- **SPECIALIST**
- **MASTER**

### UPGRADING FROM V9 TO V10 CERTIFICATIONS

### EDUCATION ACCESS OPTIONS

### FAQ AND CATALOG SUMMARY

### MICROSTRATEGY EDUCATION FAQ

### CATALOG SUMMARY

### MICROSTRATEGY EDUCATION TEAM

- **MEET “THE SCRIBES”**
- **MEET “THE LEAGUE OF EXTRAORDINARY GENTLE-WOMEN/MEN”**
- **MEET “THE CONCIERGES”**
- **MEET “THE CHIEF TROUBLEMAKER”**
WELCOME TO MICROSTRATEGY EDUCATION

If you are reading this, then hopefully you are looking at educational solutions to maximize your investment in MicroStrategy. And if you’ve gotten this far, I encourage you to go a step further and spend some time reviewing all the courses and certifications we have to offer on all our MicroStrategy products.

MicroStrategy Education is, first and foremost, thoroughly committed to creating compelling content for the various industries we support, and refreshing our courses frequently to support our software release schedule. Equally important to us is the student experience when it comes to Education delivery and knowledge consumption. Our Curriculum Developers bring with them not just experience in editing and writing but an understanding of the user experience, how an individual learns, and how to create workshops and lecture material that instills knowledge and stays with individuals once they leave the classroom environment. The synergistic union of our curriculum developers, our education delivery consultants, and experts in our technology organization has led to a collaborative effort in producing a comprehensive catalog of courses, learning paths, and certifications for our users.

But success for us is based on our relationship with you. I have a simple philosophy when it comes to my mission with the MicroStrategy Education team—Customers provide feedback because they care, and because they value our product. That philosophy drives us to always ask ourselves not whether we can do better but how we can do better. Historically, our courses focused on analytics, appealed to the more advanced user and assumed a level of MicroStrategy expertise. Building this course catalog required a paradigm shift in our thinking. Today, learning paths for Analysts, Administrators, and SDK Developers ensure that every course builds a foundation, and helps you gain skills no matter your level of MicroStrategy expertise. We also recognized that time constraints and preferred methods of learning vary. So, hands on class workshops, videos, short micro-learnings, and Self-Paced E-learning allow you to learn when you want and how you want. Our E-learning courses continue to gain popularity as we see more customers purchase the Enterprise Licensing edition of these courses to drive mass adoption within organizations. Last but not least, I am extremely pleased to announce the launch of our brand new MicroStrategy Certifications. We built these certifications with one word in mind—“TRUST.” Any individual in your organization certified under our new certification protocol can be trusted to have the knowledge and skill sets to leverage the MicroStrategy platform.

In closing, I want to thank you for helping us get here. Your support and feedback have been instrumental in the improvements we have and will continue to make as a team.

Sincerely,
Rohit Amba
SVP, MicroStrategy Global Education
ramba@microstrategy.com
Jump Start: Your MicroStrategy Education for free
10.117 Jump Start Dashboards and Data Discovery (1 day)

Course description
This free course introduces you to MicroStrategy’s software and the Education catalog of advanced courses. Import data into MicroStrategy Desktop to create visually appealing interactive dashboards. Turn your data into visualizations that enable you to quickly and easily analyze trends and key performance indicators. Analyze your visualization by applying thresholds, drilling, and filters. Easily export the dashboard to share with others and access your data on the go.

Skills you gain
- Import and refine data to create dashboards
- Display data within appropriate interactive visualizations for most effective business analysis
- Analyze data effectively for a given graph type

MicroStrategy products covered
- MicroStrategy Desktop

Right for you if
You want to create a visually appealing interactive dashboard to improve your business analysis, while also learning about MicroStrategy’s product offerings and Education’s course catalog.

Topics
1. Import data
   - Desktop foundations
   - Import data
2. Create a dashboard with data visualizations
   - Desktop interface
   - Types of visualizations
3. Analyze visualizations
   - Group related data objects: Layer data
   - Limit data to specific values: Filters
   - Easily identify trends
   - Dig deeper into your data: Drilling
   - Highlight important changes to your data: Thresholds
   - Create a metric based on existing metrics: Derived metrics
   - Enhance your dashboard: Adding text and images
4. Publish dashboards
   - Annotate a dashboard
   - Save a dashboard
   - Export a dashboard
   - Export a visualization
   - Further analyze your data
10.118 Jump Start Advanced Reporting (1 day)

Course description

This free course introduces you to MicroStrategy’s software and the Education catalog of advanced courses. Create metrics, attributes, filters, and prompts to design business queries that display the report results that users need. Build perfectly formatted documents and interactive documents (enterprise dashboards) commonly used for financial statements, performance scorecards, and executive reporting applications.

Skills you gain

- Introduction to basic analytical reporting objects
- Create simple reports
- Overview of boardroom-quality document creation
- Overview of advanced metrics

MicroStrategy products covered

- MicroStrategy Web
- MicroStrategy Report Services

Right for you if

You want to create reports, documents, and interactive documents (enterprise dashboards), while also learning about MicroStrategy’s product offerings and Education’s course catalog.

Topics

1. Viewing and creating reports
   - Reports in MicroStrategy Web
   - Building a report: Report objects
   - Business context on a report: Attributes
   - Creating a report
   - Creating a report from scratch
   - Report types
   - Building reports based on pre-designed reports and templates
   - Report Services documents

2. Creating metrics and filters
   - Building metrics to calculate data
   - Building filters to filter data on reports

3. Report Services documents
   - Formatted data displays: Basic documents
   - Creating a document: Document Editor
   - Building your document: Document objects
   - Organizing the document: Document sections

4. Interactive documents
   - Adding interactivity to a document

5. Advanced reporting
   - Add smart totals to compound metrics: Smart metrics
   - Specify the attribute to use in the metric calculation: Level metrics
   - Make time-based comparisons: Transformation metrics
   - Grouping attribute elements: Custom groups
   - Dynamically modify the contents of a report: Prompts
**10.119 Jump Start Enterprise Applications (1 day)**

**Course description**
This free course introduces you to MicroStrategy’s software and the Education catalog of advanced courses. Build a basic analytics application through hands-on exercises, starting with the basic building components of an analytics architecture. Touches on the fundamentals of enterprise analytics and builds the knowledge base necessary to tackle the more advanced courses offered for analysts, developers, and administrators.

**Skills you gain**
- Overview of a BI enterprise platform and its products and tools
- Brief overview of reports and documents
- Plan simple data warehouse and reporting object mapping
- Understand the project life cycle

**MicroStrategy products covered**
- MicroStrategy Analytics
- MicroStrategy Mobile

**Right for you if**
You want to gain a comprehensive exposure to MicroStrategy's BI, mobility, and security products, while also learning about MicroStrategy’s product offerings and Education's course catalog.

**Topics**
1. MicroStrategy Enterprise platform overview
   - Interact with your business data: User interfaces
   - Grid reports: Basic data analysis
   - Create an interactive document: Visualize and interact with your data
2. Data: The foundation of Business Intelligence
   - Analyze data with MicroStrategy
   - Using a data warehouse: MicroStrategy metadata
   - MicroStrategy architecture
3. Build and store your objects: MicroStrategy projects
   - Project life cycle
   - Create a physical data warehouse schema
   - Create a project
   - Create application objects
10.123 Jump Start Enterprise Mobility (1 day)

Course description
This free course introduces you to MicroStrategy’s software and the Education catalog of advanced courses. Build basic enterprise mobile applications using MicroStrategy tools. Learn the fundamentals of enterprise mobile and touch on topics necessary to tackle the more advanced courses offered for analysts, developers, and administrators. Includes hands-on workshop; you will perform basic mobile application design, development, and deployment.

Skills you gain
• Design principles and best practices for app creation
• Use documents to create a mobile app
• Overview of adding interactive app functionality
• Create and deploy a mobile app to your mobile device

MicroStrategy products covered
• MicroStrategy Mobile

Right for you if
You want to create Mobile apps, while also learning about MicroStrategy’s product offerings and Education’s course catalog

Best class experience if you
Bring a supported mobile device to class

Topics
1. Plan and design a Mobile app
• Open a mobile app and explore mobile capabilities for business analysis
• User-centered design
• Select the platforms to support your app
• Graphic design considerations
• Create, develop, and test your app

2. Create a Mobile app
• Business scenario
• App components
• MicroStrategy links
• Build an app template with a home page
• Create the documents
• Add interactive elements to the app

3. Extend Mobile capabilities
• Perform database write-back with Transaction Services
• Introduction to Mobile SDK for customizing

4. Administration and app deployment
• The Mobile client
• Mobile architecture
• Mobile configuration
• Mobile app deployment
• Additional Mobile features
10.133 Jump Start Digital Identity (1 day)

Course description
This free course introduces you to MicroStrategy’s software and Education catalog of advanced courses. Gain the practical knowledge needed to build and deploy an enterprise security network to secure the enterprise’s processes, people, and assets. Learn the fundamental concepts of securing an enterprise and the critical requirements of a modern security solution. In this hands-on course, MicroStrategy Usher is used to create and deploy security networks.

Skills you gain
- Set up a simple user badge in MicroStrategy Usher
- Set up a network of users in an Usher network
- Design a simple security network of logical and physical assets
- Analyze common corporate data collecting, compliance, and mobile device use policies
- Set up Usher as two-factor authentication on a system

MicroStrategy products covered
- Enterprise Security platform with MicroStrategy Usher

Right for you if
- You want to secure your enterprise processes, people, and assets, while also learning about MicroStrategy’s product offerings and Education’s course catalog

Topics
1. Introduction to enterprise security
   - Usher Mobile Identity platform
2. Usher Security App and badges
3. Designing the security network architecture
   - Security analysis of logical and physical assets and VPNs/firewalls
   - Design and implementation planning
   - Usherizing MicroStrategy Web
Our Comprehensive Catalog of Classes
ANALYST LEARNING PATHS

Certifications:
- 10.111
- 10.112
- 10.113
- 10.121
- 10.131
- 10.132
- 10.411
- 10.412
- 10.413
- 10.421
- 10.711
- 10.431

Formerly known as MCD
10.000 What's New in MicroStrategy 10 (2 days)

Course description

Skills you gain
- Learn new features and workflows
- Train others in your organization on new features and workflows
- Use new visualization and dashboarding capabilities
- Present interactive boardroom data
- Update your security standards using Usher biometrics, configuration, and FastBadge
- Drill to details, sort data, and apply filters

MicroStrategy products covered
- MicroStrategy Analytics Platform
- MicroStrategy Mobile Platform
- MicroStrategy Identity Platform

Right for you if
You have an interest in learning about new features in MicroStrategy, regardless of your role

Best class experience if you have
Familiarity with MicroStrategy concepts and terminology

Topics
1. MicroStrategy Visual Insight
   - Data management
   - Analytical capabilities
   - Visualization improvements
   - Dashboard sharing
2. MicroStrategy Desktop
   - Desktop connectivity and display
   - Creating dashboards and visualizations
   - Exporting to PDF
   - Filter enhancements
3. MicroStrategy Web
   - Reports
   - Report Services documents
   - Web SDK
   - Preview feature: Hierarchy reporting
4. MicroStrategy Mobile
   - iOS enhancements
   - Android enhancements
   - Transaction Services
5. MicroStrategy System Manager
6. MicroStrategy Integrity Manager
7. MicroStrategy Command Manager
8. MicroStrategy Distribution Services
9. MicroStrategy Intelligence Server
   - Platform installation and deployment
   - Clustering
   - Logging
   - Authentication
   - In-memory analytics
10. MicroStrategy Office
11. MicroStrategy Enterprise Manager
12. Usher Security
   - Usher security features
   - Usher Analytics enhancements
10.111 Overview of Enterprise Analytics (2 days)

Course description
Build a basic analytics application through hands-on exercises. Start with the components of an analytics architecture, then learn about development, deployment, and simple administrative features. Covers the fundamentals of enterprise analytics and builds the knowledge base necessary for the more advanced courses offered for analysts, developers, and administrators.

Skills you gain
- Learn business intelligence product offerings
- Create simple reporting objects
- Plan data warehouse and reporting object mapping
- Create basic reports, documents, and dashboards
- Understand the project life cycle
- Create objects on the fly (derived objects)
- Deploy a simple app to a mobile device
- View a document on a mobile device
- Understand where data comes from and what you can do with it

MicroStrategy products covered
- MicroStrategy Developer
- MicroStrategy Web
- MicroStrategy Mobile
- and various project design and administration tools

Right for you if
You are an analyst, SDK developer, or administrator who has an interest in learning about MicroStrategy business intelligence products

Topics
1. MicroStrategy enterprise platform
   - Interact with your business data: User interfaces
   - Grid reports: Basic data analysis
   - Create an interactive document: Visualize and interact with your data
2. Data: The foundation of business intelligence
   - Analyze data with MicroStrategy
   - Using a data warehouse: MicroStrategy metadata
   - MicroStrategy architecture
3. Build and store your objects: MicroStrategy projects
   - Introduction to MicroStrategy projects
   - Project life cycle
4. Advanced reports and documents
   - Limiting data on the report: Filters
   - Calculating data on the report: Metrics
   - Grouping attribute elements: Custom groups
   - Interacting with your data: Interactive documents
5. MicroStrategy Mobile
6. SDK overview
7. MicroStrategy Usher
   - Usher platform
   - Usher analytics
8. MicroStrategy administration
   - MicroStrategy Web administration
   - Security
   - Monitoring
   - Automation with Command Manager and System Manager
10.112 Introduction to Analytics Reporting (2 days)

Course description  ■  ■  ■
Create reports and the objects used on reports (filters, metrics, and prompts) with hands-on exercises. Transform datasets into appealing, insightful Visual Insight (VI) dashboards. Exercises use the MicroStrategy Web interface.

Skills you gain
- Analyze organizational data to make effective business decisions
- Create business reports
- Identify appropriate business concepts to evaluate calculations
- Use calculations and measures to determine actionable business decisions
- Logically plan subsets of data for analysis, using filtering techniques
- Design business reports for other users, with self-service features
- Share reports using export, print, or subscribing to report deliveries
- Identify and analyze trends, anomalies, and other important meaning in your data

MicroStrategy products covered
- MicroStrategy Web

Right for you if
You are a beginning analyst, who needs an introduction to basic report and object creation and wants an overview of Visual Insight dashboards and visualizations

Topics
1. Foundation for creating reports
   - Calculating business data: Metrics
   - Business context on a report: Attributes
2. Creating reports
   - Building reports based on pre-designed reports
   - Building reports using templates
   - Building reports from scratch
3. Filtering reports
   - Building filters to filter data on reports
   - Building prompts to allow user input
4. Calculating data on reports
   - Building metrics to calculate data
   - Building metrics within reports: derived metrics
5. Delivering and sharing reports
   - Exporting reports
   - Subscribing to reports for automatic delivery
   - Sending reports to other users
   - Bursting large reports into smaller files
   - Sharing a link URL reflecting latest changes and prompt answers with other users
6. Dashboards and visualizations
   - Adding data to your dashboard
   - Displaying data as a visualization
   - Creating a grid visualization
   - Creating a bubble chart visualization
   - Filtering data on a dashboard
10.113 Visual Data Discovery: Visual Insight (2 days)

Course description
Import and refine data to create datasets in dashboards. Transform those datasets into visually- compelling, interactive data representations (visualizations). Format, analyze, filter, and layer the visualizations to create appealing, insightful Visual Insight (VI) dashboards through the MicroStrategy Web interface.

Skills you gain
- Identify and analyze trends, anomalies, and other important meaning in data
- Select the appropriate graph to display data for a specific business analysis
- Convert raw data into a clean visual display
- Clean and refine raw data to view quality and consistent information
- Organize data in groups and layers to connect similar information
- Create logical patterns in data using filtering techniques
- Share insights with colleagues through exporting
- Create dashboards displaying data in interactive graphs

MicroStrategy products covered
- MicroStrategy Visual Insight in MicroStrategy Web

Right for you if
You are interested in learning about the basics of MicroStrategy reporting

Topics
1. About dashboards and visualizations
   - Adding data to your dashboard
   - Displaying data as a visualization
   - Filtering data on a dashboard
   - When to use a dashboard vs. a document
2. Importing data
   - Improving the quality of your data’s structure
   - Improving the quality of your data’s values: Data wrangling
   - Importing data from different data sources
3. Visualizing your data
   - Creating visualizations
   - Heat maps: Analyzing multiple variables simultaneously
   - Maps: Displaying geographic data
   - Network visualizations: Exploring relationships between items
   - Pie charts: Viewing objects’ contributions to a total
4. Filtering and layering data
   - Layers of data that are filtered differently: Sheets
   - Layers of data that are filtered the same: Panels
5. Sharing dashboards
   - Sharing the dashboard and its data with other MicroStrategy users
10.114 Visual Data Discovery: MicroStrategy Desktop (1 day)

Course description
Import data into MicroStrategy Desktop to create visually appealing interactive dashboards. Learn how to turn your data into visualizations that enable you to quickly and easily analyze trends and key performance indicators. Analyze your visualization by applying thresholds, drilling, and filters. Easily export the dashboard to share with others and access your data on the go.

Skills you gain
- Import and refine data to create dashboards
- Display data within appropriate interactive visualizations for most effective business analysis
- Analyze data effectively for a given graph type

MicroStrategy products covered
- MicroStrategy Desktop

Right for you if
You want to learn how to create a visually appealing interactive dashboard to improve your business analysis

Topics
1. Import data
   - Desktop foundations
   - Import data
2. Create a dashboard with data visualizations
   - Desktop interface
   - Types of visualizations
3. Analyze visualizations
   - Group related data objects: Layer data
   - Limit data to specific values: Filters
   - Easily identify trends
   - Dig deeper into your data: Drilling
   - Highlight important changes to your data: Thresholds
   - Create a metric based on existing metrics: Derived metrics
   - Enhance your dashboard: Adding text and images
4. Publish dashboards
   - Annotate a dashboard
   - Save a dashboard
   - Export a dashboard
   - Export a visualization
   - Further analyze your data
10.121 Overview of Enterprise Mobility (2 days)

Course description

Build basic enterprise mobile applications using MicroStrategy tools. Covers the fundamentals of enterprise mobile and builds the knowledge base necessary to tackle the more advanced courses offered for analysts, developers, and administrators. The majority of this course will be hands on, to perform basic mobile application design, development, and deployment.

Skills you gain

- Design principles for mobile apps
- Create documents with interactive graphs
- Create mobile configurations
- Add mobile-specific features to a document
- Create and deploy a mobile app to a mobile device
- Mobile app development lifecycle
- Storyboarding
- Mobile architecture basics

MicroStrategy products covered

- MicroStrategy Mobile platform

Right for you if

You are an analyst who needs to create mobile apps to provide documents on mobile devices

Best class experience if you have

10.111 Overview of Enterprise Analytics
10.413 Advanced Documents

Students must bring a supported mobile device to class

Topics

1. Plan and design a MicroStrategy Mobile app
   - User-centered design
   - Select the platforms to support your app
   - Graphic design considerations
   - Design best practices for tablets
   - Design best practices for smartphones
   - Create, develop, and test your app

2. Create a Mobile app
   - The business scenario
   - App components
   - MicroStrategy links
   - Building the Sales Performance app
   - Creating the documents: Adding objects
   - Adding interactive elements to the app
   - Layering and grouping data in the app

3. Extend Mobile capabilities
   - Transaction Services
   - Mobile SDK

4. Administration and app deployment
   - The Mobile client
   - Mobile architecture
   - Mobile configuration
   - Mobile app deployment
   - Additional Mobile features
10.131 Overview of Enterprise Security (1 day)

Course description
Gain the practical knowledge needed to build and deploy an entire enterprise security network to secure the enterprise’s processes, people, and assets. Learn the fundamental concepts of securing an enterprise and the critical requirements of a modern security solution. In this hands-on course, MicroStrategy Usher is used to create and deploy security networks.

Skills you gain
- User badges
- User networks
- Security network of logical and physical assets
- Analyze common corporate data collecting, compliance
- Analyze mobile device use policies
- Two-factor authentication

MicroStrategy products covered
- MicroStrategy Usher
- MicroStrategy Web

Right for you if
You are a business analyst or security professional who wants to learn the fundamentals of the Usher Identity platform

Best class experience if you have
10.111 Overview of Enterprise Analytics

Topics
1. Introduction to Enterprise Security
   - Usher Mobile Identity platform
2. Usher Security app and badges
3. Designing the security network architecture
   - Security analysis
   - Design and implementation planning
   - Usherizing MicroStrategy Web
4. Project
   - Project tasks
   - Project solutions
**10.132 Enterprise Security Analytics (1 day)**

**Course description**
Master the skills necessary to design and build enterprise security analytics enriched with data from various corporate resources. Includes hands-on exercises to build out enterprise security analytics.

**Skills you gain**
- Usher Analytics out-of-the-box reports and dashboards
- Monitor access to buildings and doors
- Monitor logical access to software systems

**MicroStrategy products covered**
- MicroStrategy Usher
- MicroStrategy Web
- MicroStrategy Mobile

**Right for you if**
You are a business analyst or security professional who needs to start setting up security and monitoring user identity and activity in your environment

**Best class experience if you have**
10.111 Overview of Enterprise Analytics
10.131 Overview of Enterprise Security

**Topics**
1. Introduction to Usher Analytics
   - Overview of Usher
   - Usher architecture fundamentals
   - Overview of Usher Analytics
2. Reporting in Usher Analytics
   - Intelligence with Usher Analytics
   - Custom reporting
   - MicroStrategy object categories
   - Viewing and distributing reports
   - Building reports
   - Creating documents
10.411 Project Architecting (3 days)

Course description
Create and maintain the foundation of an enterprise analytics application by developing a physical schema and logical model from single, multiple, or heterogeneous data sources. Develop core objects of the reporting infrastructure such as attributes, facts, hierarchies, and mappings to data warehouse tables. Leverage advanced options to build the infrastructure for efficiency and performance.

Skills you gain
- Logical data modeling
- Data warehouse schema development
- Project life cycle management
- Schema management
- Aggregate table development
- Multisource report development
- Partitioning
- Business intelligence project design

MicroStrategy products covered
- MicroStrategy Architect

Right for you if
You are a project designer or advanced analyst who wants to learn the process of creating a project foundation.

Best class experience if you have
10.111 Overview of Enterprise Analytics

Topics
1. Architecting the MicroStrategy schema
   - MicroStrategy project life cycle
   - Creating a logical data model
   - Data warehouse physical schema design
   - Creating a MicroStrategy schema
2. Managing the MicroStrategy schema
   - Modifying facts
   - Aggregate tables
3. MicroStrategy Multisource Option
   - Primary and secondary database instances
   - Support for duplicate tables
   - SQL generation for multisource reports
   - Supported use cases
4. Advanced design features
   - Fact level extension
   - Partitioning
   - Data importing
   - Logical view creation
   - Attribute role configuration
10.412 Advanced Analytics Reporting (2 days)

Course description
Develop advanced report objects (metrics, filters, derived attributes, custom groups, and consolidations) to create complex analytical reports. The majority of this course is hands on using MicroStrategy Developer and Web in a Cloud environment.

Skills you gain
- Create non-aggregatable metrics
- Create level metrics to compare contributions
- Create transformation metrics to offset values
- Use advanced mathematical functions in metric calculations
- Use dynamic dates to filter data
- Create and use pass-through functions
- Combine different attribute elements to filter data
- Create attributes and metrics on the fly
- Learn about Intelligent Cubes
- Determine the order of calculation
- Determine how data source tables are joined to produce specific results

MicroStrategy products covered
- MicroStrategy Developer and Web

Right for you if
- You are an advanced analyst who needs to create report objects to support powerful and complex reporting needs

Best class experience if you have
10.112 Introduction to Analytics Reporting
10.111 Overview of Enterprise Analytics

Topics
1. Introduction to advanced analytics
   - Metadata objects and dependencies
   - Tools and interfaces
   - Final objectives
2. Base formulas and advanced subtotals
   - Base formulas
   - Advanced subtotals
3. Advanced metrics
   - Conditional metrics
   - Transformation metrics
   - Count metrics
   - Advanced functions
   - Dynamic aggregation
4. Level and inventory metrics
   - Level metrics
   - Interacting with the context of reports: Report level
   - Non-aggregatable metrics
   - Advanced metrics in the Formula Editor
   - Nested metrics
5. Advanced filters
   - Advanced attribute qualifications
   - Advanced metric qualifications
   - Relationship filters
6. Advanced attributes
   - Derived attributes
   - Derived elements
   - Consolidations
   - Custom groups
7. Intelligent Cubes
8. Advanced reporting options
   - Report data options
10.413 Advanced Documents: Interactivity and Joining Datasets (2 days)

Course description 📖 📚 📚
Create documents to combine data from multiple sources in a pixel-perfect format. Allow end users to interact with documents using selectors, panels, and widgets. The majority of this course is hands on using MicroStrategy Web in a Cloud environment.

Skills you gain
- Create a document with pixel-perfect formatting
- Add interactivity to documents
- Combine data from multiple sources in a single document, and specify data joins
- Layer data and multiple documents
- Link documents to other documents, reports, and web pages
- Design documents for multiple users
- Combine metrics from multiple datasets

MicroStrategy products covered
- MicroStrategy Report Services documents in MicroStrategy Web

Right for you if
You are an advanced analyst who needs to create documents to combine data from multiple sources, provide interactivity, and control formatting down to the pixel

Best class experience if you have
10.112 Introduction to Analytics Reporting
10.111 Overview of Enterprise Analytics

Topics
1. Introduction to documents
   - Interactive documents
   - Creating a simple document
2. Creating a document
   - Document Editor
   - Document objects
   - Arranging and formatting objects
   - Designing with document sections
   - Creating a document
3. Advanced document options
   - Using templates
   - Adding MicroStrategy reports
   - Creating metrics in a document
   - Creating layers of documents: Multi-layer documents
   - Opening documents, reports, and web pages from a document: Linking
   - Highlighting data that meets thresholds: Conditional formatting
   - Tooltips: Providing additional information
4. Adding data to documents: Datasets
   - Providing the data displayed on documents
   - Using multiple datasets
   - Reports that use multiple datasets
   - Calculated expressions: Combining metrics from multiple datasets
5. Interactive documents
   - Dashboard design techniques and tips
   - Document objects to provide interactivity
   - Creating an interactive document
# 10.421 Advanced Mobile Applications (2 days)

## Course description

Learn about advanced mobile application features such as docked panel selectors, navigation templates, and cutting-edge Mobile widgets. Create custom, code-free home pages.

In hands-on exercises, create two interactive documents and a Visual Insight dashboard, and link them together to create a mobile app. Use a variety of Mobile widgets and interactive document components. Learn applicable tasks for Mobile administrators to help you design a powerful and effective mobile app.

## Skills you gain

- Add complex interactive analysis to a Mobile app
- Configure an app with code-free customizations
- Robust app navigation functionality
- Make personal design decisions for app creation
- Apply design principles for a polished app
- Overview of app performance analysis tools

## MicroStrategy products covered

- MicroStrategy Web
- MicroStrategy Mobile

## Right for you if

You are a document or dashboard designer or mobile app designer who wants to utilize advanced Mobile features

## Best class experience if you have

- 10.113 Visual Data Discovery – Visual Insight
- 10.121 Overview of Enterprise Mobility
- 10.413 Advanced Documents

## Topics

1. Create a robust app
   - Introduction to advanced Mobile applications
   - Enhance your Mobile app with images
   - Design for multiple mobile devices: Multiple views
   - Further analyzing your data: Drilling
   - Provide additional information to users: Information windows
   - Add interactivity to Mobile apps: Mobile widgets
   - Advanced app navigation

2. Enhance your app with Visual Insight and Transaction Services
   - Visual Insight dashboards
   - Transaction Services

3. Code-free customizations
   - Customize your app without using code
   - Let users customize displayed data with prompts
   - Configure the home screen for your mobile device
   - Enable My Reports folder

4. Understand the impact of Mobile administration
   - User notifications, subscriptions, and alerts
   - Improve the user experience by understanding Mobile statistics
   - Prepare content for offline mode
   - Deploy a MicroStrategy Mobile app
10.422 Database Write-back: Mobile Transactions (2 days)

Course description

Learn how to save and store business decisions and initiate transactions in your mobile apps. Create mobile applications with write-back enabled functionality (transactions) for extended business value. Build workflows with stored procedures, input dependent text, and transactional SQL.

Skills you gain

- Create freeform SQL queries
- XQuery code to submit transactions through web services
- Create transaction reports
- Create data tables in a data warehouse that can have data written back to them
- Create documents
- Configure database write-back transactions
- Create transaction-enabled mobile apps
- Configure transactions for off-line functionality

MicroStrategy products covered

- MicroStrategy Transaction Services
- MicroStrategy Mobile
- MicroStrategy Web
- MicroStrategy Report Services

Right for you if

You are an advanced dashboard designer creating apps that utilize write-back transactions

Best class experience if you have

10.121 Overview of Enterprise Mobile
Must bring a supported mobile device

Topics

1. Introduction to MicroStrategy Transaction Services
   - Building blocks of Transaction Services: Freeform SQL and Freeform XQuery
   - Transaction Services terminology
   - Use scenarios
2. Create query reports using Freeform SQL
   - Benefits and limitations of Freeform SQL reports
   - Creating a Freeform SQL report
3. Transaction Services reports
   - Create a Transaction Services report
4. Transaction Services documents
   - Create a Transaction Services-enabled document
   - Add transactions to a grid report
5. Interact with Transaction Services on mobile devices
   - Transaction tables
   - Mobile transaction controls
   - Photo Uploader widget
   - Image Viewer widget
   - Survey widget
   - Offline Mode
6. Create transaction reports with XQuery
   - Overview of Web services
   - About XQuery
   - Define a Freeform XQuery report
   - Create transactional documents
10.431 Advanced Enterprise Security Analytics (1 day)

Course description
Learn about identity intelligence, and how to gather and use telemetry services to understand your user behavior and actions. Take advantage of Usher Professional’s mobile productivity app to monitor and communicate with teams, including push notifications. Get hands-on experience creating custom analytics that help you deconstruct data silos and understand the truth in your organization.

Skills you gain
- Install an Usher identity app
- Create a network of users
- Monitor user activity
- Analyze resource use, transactions, and other enterprise activity
- Understand a detailed analytics project architecture
- Improve Usher data quality
- Understand Apache Kafka
- Track user activity and emergency response

MicroStrategy products covered
- MicroStrategy Usher

Right for you if
You are an advanced analyst, administrator, or security professional who wants to create custom or complex analytics and fully utilize Usher Analytics features.

Best class experience if you have
10.131 Overview of Enterprise Security
10.132 Enterprise Security Analytics

Topics
1. Identity Intelligence
   - Usher Security platform
   - Identity Intelligence
   - Identity Intelligence via the Usher platform
   - Usher deployment options
   - Configuring Usher Analytics and Usher Professional
2. Usher Professional
   - Usher Pro app
   - Managing user access
   - Photo policy assessment
   - Usher Professional Analyst role
3. Security analytics
   - Usher Analytics
   - Improving Usher data quality
   - Real time reporting with Usher Analytics
   - Location tracking
   - Viewing gateway badge statistics
   - Viewing members who use your badges
10.711 Data Mining and Predictive Analytics (2 days)

Course description
Develop predictive models and reports by leveraging native algorithms or by importing models from third-party data mining vendors like R and PMML, in hands-on exercises using MicroStrategy Developer. Learn data mining best practices.

Skills you gain
- Predictive modeling
- Forecasting
- Trend analysis
- Regression analysis
- Clustering and pattern analysis
- Market basket analysis
- R script integration
- Predictive Model Markup Language (PMML) integration
- Data classification
- Time series analysis
- Decision tree analysis

MicroStrategy products covered
- MicroStrategy Data Mining functionality in MicroStrategy Developer

Right for you if
You are an advanced analyst, who needs to incorporate predictive and classification analysis into your metrics

Best class experience if you have
10.412 Advanced Analytics Reporting

Topics
1. Data mining and predictive analytics overview
   - Purpose of data mining and advanced analytics tools
   - Advantages of data mining
2. Data mining models, terminology, and techniques
   - Basic data mining model
   - Data mining terminology
   - Data mining types and algorithms
   - Integrating data mining with MicroStrategy
   - Introduction to MicroStrategy data mining services
   - Creating a data mining dataset
3. Using data mining models with MicroStrategy
   - Using MicroStrategy predictive models
   - Using the training metric wizard to create a training metric
   - Developing models using PMML
   - Evaluating the predictive model
   - Developing models using R
   - Developing predictive metrics
   - Using the MicroStrategy predictive model viewer
4. Forecasting
   - Forecasting uses
   - Regression analysis
   - Linear and exponential regression
   - Tree regression analysis
   - Time series analysis
5. Classification
   - Decision tree analysis
   - Logistic regression analysis
6. Association
7. Association rules
8. Clustering
   - Cluster analysis
ADMINISTRATOR LEARNING PATHS

Product:
- ■ ANALYTICS
- ■ MOBILE
- ■ IDENTITY

Delivery method:
- ■ INSTRUCTOR LED
- ■ E-LEARNING
- ■ VIDEO

CERTIFICATIONS

10.311
10.312
10.313
10.321
10.331

Certified Specialist Administrator
MCSAD

10.611
10.612
10.621
10.631

Certified Master Administrator
MCMAD
10.311 Administration for Enterprise Analytics (3 days)

Course description
Deploy, manage, and secure a MicroStrategy Enterprise Analytics environment. Optimize and automate common administrator tasks, and monitor the MicroStrategy environment using various administration tools and features. Includes hands-on exercises in an enterprise analytics Cloud environment.

Skills you gain
- System tuning based on business requirements
- Project lifecycle management and cross-environment object migration planning
- Automated script development
- Security planning based on corporate security requirements
- Implementing user credential and authentication rules
- System troubleshooting based on log file analysis
- Versioning and object change auditing

MicroStrategy products covered
- MicroStrategy Developer
- MicroStrategy administration tools

Right for you if
You are an administrator who wants to fully administrate a complete MicroStrategy environment

Best class experience if you have
10.111 Overview of Enterprise Analytics

Topics
1. MicroStrategy Analytics Platform overview
2. Installing MicroStrategy
   - MicroStrategy deployment options
   - Intelligence Server installation and activation
3. Connectivity
   - Analytics architecture
   - Two-tier, three-tier, and four-tier environments
4. Configuring the analytics environment
   - Managing system resources
   - Viewing project activity: Monitors
   - Placing controls on a project: Governors
5. Optimizing system performance
   - Caching and Intelligent Cubes
   - Scheduling and subscriptions
6. Managing user authentication
   - Configuring Usher authentication
   - Account security policy
7. Managing user security and access
   - Groups and users
   - Managing access to data and objects
   - Connection mapping
   - Security filters and roles
   - Access Control Lists
8. Managing the project life cycle
   - Migrating objects across environments
   - Object Manager migration methods
9. Managing data integrity
10. Automating administrative tasks
    - Automating tasks with Command Manager scripts
    - System Manager workflows
11. Monitoring project environments
    - Monitoring multiple environments
    - Health Center
    - Diagnosing and fixing problems
12. Tracking changes with change journaling
10.312 Administration for MicroStrategy Cloud (2 days)

Course description
Learn the tasks involved in administering a MicroStrategy Cloud environment, including how to manage user security and configure the environment for optimal performance and security. Includes detailed information on migrating from MicroStrategy on-premises to MicroStrategy Cloud.

Skills you gain
• Cloud architecture
• Security in a cloud environment
• System performance optimization
• Scheduling administration tasks in a cloud environment
• User authentication
• Administrative task automation in a cloud environment
• Project life cycle management
• Troubleshooting issues in a cloud environment
• Object change auditing

MicroStrategy products covered
• MicroStrategy Cloud, including MicroStrategy Developer and MicroStrategy Web

Right for you if
You are an administrator who wants to administer your MicroStrategy system in a MicroStrategy Cloud environment

Best class experience if you have
10.311 Administration for Enterprise Analytics

Topics
1. Introduction to MicroStrategy Cloud
   • Tools to administer projects
   • Deployment options
   • Cloud services and benefits
   • Server configurations
   • Security services
   • Cloud team and customer responsibilities
   • Environment management
2. AWS and Cloud provisioning
   • Amazon machine deployment
   • AWS services used by MicroStrategy
   • Administrator roles
   • Provisioning machines
   • Types of environments: Team, Department, Enterprise
   • Cloud Formation for load balancers
   • Console automation using scripts
3. Using MicroStrategy in the Cloud
   • Connectivity options
   • Managing authentication
   • Configuring LDAP integration
   • Push notifications
   • Distribution Services
4. Enterprise Manager
   • Remote Command Manager
5. On-Prem to Cloud migration
   • Migration checklist
   • Establishing warehouse connectivity
   • Migrating metadata and images
   • Migrating caches and cubes
   • Testing the migration
   • User privileges
10.313 Introduction to Big Data (1 day)

Course description
Understand big data from the ground up, including structured, unstructured, and semi-structured data attributes of big data, as well as use cases. Get specific experience with Hadoop's ecosystem, as well as MicroStrategy data integration, federation, modeling, preparation, and certification support. Provides details to integrate MicroStrategy with Hadoop, as well as self-service and integration with SalesForce.

Skills you gain
- Big data ecosystem
- Data retrieval from Hadoop
- Web Services integration using XQuery
- Reporting in a big data environment
- Data retrieval from Apache Spark, Hive, and Drill
- Data retrieval from Presto
- SQL on Hadoop

MicroStrategy products covered
- MicroStrategy Developer

Right for you if
You are a business intelligence professional interested in learning about big data and leveraging MicroStrategy for a comprehensive big data solution.

Best class experience if you have
10.111 Overview of Enterprise Analytics

Topics
1. Overview of big data and Hadoop
2. Working with Hadoop and MicroStrategy
   - Working with Hadoop distributions
   - MicroStrategy-Hadoop connectivity options
   - SQL on Hadoop
   - Connecting MicroStrategy to HDFS: Hadoop Gateway
   - Web services integration
3. Working with Spark Processing Engine and MicroStrategy
   - Spark overview
   - Spark architecture
   - Connect MicroStrategy to Spark
### 10.321 Administration for Enterprise Mobility (1 day)

**Course description**

Gain practical knowledge necessary to deploy, configure, manage and optimize the performance of mobile applications either via the Cloud or on premise.

**Skills you gain**

- SSO authentication configuration in a mobile environment
- Mobile app deployment options
- Mobile architecture
- Error handling in a mobile environment
- Security in a mobile environment
- Mobile subscription creation
- Mobile performance improvement strategies
- Troubleshooting mobile issues

**MicroStrategy products covered**

- MicroStrategy Mobile
- MicroStrategy Mobile Administrator

**Right for you if**

You are an administrator who wants to optimize, secure, and manage a MicroStrategy Mobile environment

**Best class experience if you have**

10.121 Overview of Enterprise Mobile

Must bring a supported mobile device to class

**Topics**

1. Introduction to Mobile administration
   - Architecture
   - Clients
   - Deploying apps
   - Server installation
   - Generating a configuration link
   - Privileges and permissions
   - Enabling single sign-on authentication

2. Subscriptions
   - Scheduling and subscriptions
   - Creating schedules
   - Alerting
   - Subscription Creation Wizard
   - Subscription Manager
   - Subscription information and governors
   - Error handling

3. Mobile security
   - Mobile device, data, and app security
   - Authentication
   - Analytics platform security
   - Groups and users
   - Privileges and security roles
   - Project level security
   - Managing access to MicroStrategy objects

4. Mobile performance and troubleshooting
   - Mobile performance improvement strategies
   - Troubleshooting
   - Diagnostic logs
   - Configuring diagnostics
10.331 Administration for Enterprise Security (1 day)

Course description
Learn how to deploy and manage enterprise security networks for securing the enterprise's processes, people, and assets. Set up user badges and other security measures, to allow security analysts to track and monitor physical and logical (software) system use.

Skills you gain
• User badges
• Security architecture and components
• Usher network of users
• Set up restrictions on a badge, including passcode, location, and time-based
• Synchronize user network with identity management systems (IDMS)

MicroStrategy products covered
• MicroStrategy Usher

Right for you if
You are an administrator or security professional who wants to set up and manage the Usher Identity platform

Best class experience if you have
10.111 Overview of Enterprise Analytics
10.131 Overview of Enterprise Security

Topics
1. Introduction to enterprise security
   • Traditional security methods
   • Enhancing the security of traditional measures
   • Software-based security measures
   • Usher use cases
   • Responsibilities of a MicroStrategy Usher administrator

2. Usher architecture and deployment
   • Usher workflows
   • Usher deployment
   • Usher implementation scenarios

3. Usher administration
   • Creating an Usher security network and badge
   • Managing network properties
   • Adding, editing, and removing users and administrators
   • Managing badge properties
   • Badge setup and recovery
   • Configuring VPN connections to integrate Usher
   • Deleting an Usher network
   • Gateway configuration

4. Security
   • Security in the Usher platform
   • Client-level security
   • Data transmission-level security
   • Usher server-level security
   • Usher gateway-level security
10.611 Analytics Performance Tuning (2 days)

Course description
Learn how to tune the MicroStrategy Enterprise Analytics environment for high performance. Understand caching, Intelligent Cubes, system configuration, and other options available to optimize data transfer, data rendering, data warehouse access, and mobile performance.

Skills you gain
- Improve system performance using techniques such as caching and SQL optimization
- Create high-performance dashboards for end users
- Implement mobile performance improvement strategies
- Configure high-performance networks using techniques such as HTTP compression

MicroStrategy products covered
- MicroStrategy administrative tools
- MicroStrategy Developer
- MicroStrategy Web
- MicroStrategy Mobile

Right for you if
You are an administrator who wants to optimize the performance of your MicroStrategy environment

Topics
1. Components of high performance
2. Caching
   - Optimizing system performance
   - Report and document caching
   - Object caching
   - Element caching
3. Intelligent Cubes
   - Intelligent Cubes overview
   - Incremental cube refresh
   - Report execution against cubes
4. System architecture and configuration
   - Server specifications
   - Intelligence Server configuration
   - Web server configuration
5. Data transfer
   - Introduction to network performance
   - Key network concepts
   - Network recommendations for high performance
   - Distribution Services performance
6. Data rendering
   - Report execution workflow
   - High performance dashboards
7. Data warehouse access
   - Database query performance
   - Report and schema design optimizations
   - SQL generation optimizations
   - Data architecture optimizations
   - Optimizing MultiSource reports
   - ODBC optimizations
8. Mobile performance
   - Dashboard execution workflow in the Mobile environment
   - Mobile performance improvement strategies
10.612 Advanced Big Data (1 day)

Course description

Learn how MicroStrategy masters the challenges of Big Data for organizations. Understand methods to maximize value and speed while ensuring veracity of data. Provides hands-on experience connecting to and configuring sample big data sources, understanding real-time processing, specific Big Data security challenges, and learn how to fine-tune performance.

Skills you gain

• Data retrieval from NoSQL sources
• Security in a big data environment
• Tuning Cloudera Impala
• Configuring and reporting on Apache Solr data
• Real-time analytics

MicroStrategy products covered

• MicroStrategy Developer

Right for you if

You are an administrator, project designer, data quality expert, or security specialist who wants to access big data sources, optimize their performance, and ensure adherence to security requirements

Best class experience if you have

10.313 Introduction to Big Data

Topics

1. Overview of big data
   • Attributes of big data
   • Hadoop overview
2. Working with NoSQL sources
   • NoSQL and NoSQL sources
   • MicroStrategy-NoSQL database connectivity options
   • Real-time analytics
   • Streaming
3. Real-time processing architecture
   • Framework and industry adoption
   • Using MicroStrategy with Storm and Spark Streaming
4. Security in a big data environment
   • Security in Hadoop
   • Other security options
   • MicroStrategy’s security model
5. Performance optimization for big data access
   • Emerging technologies for addressing big data challenges
   • Generalized big data analytics workflow
   • Best practices for performance optimizations
10.613 Automating Administration (1 day)

Course description

Learn to use MicroStrategy automation tools for speeding up and streamlining common administrator tasks to manage your system. Create scripts and workflows to standardize such tasks as object management across test and production environments, managing changes related to system upgrades, new project deployment, and ensuring that data remains consistent and reliable throughout these processes.

Skills you gain

- Application life cycle management
- Routine administrative task automation
- Object integrity testing
- Object migration management
- Multiple project management
- Automating object conflict resolution
- Automated workflow configuration

MicroStrategy products covered

- MicroStrategy Developer
- MicroStrategy Object Manager
- MicroStrategy Project Merge
- MicroStrategy Command Manager
- MicroStrategy System Manager
- MicroStrategy Integrity Manager

Right for you if

You are a MicroStrategy administrator who wants to speed up your regular tasks and automate frequently repeated actions

Best class experience if you have

10.311 Administration for Enterprise Analytics

Topics

1. Object Manager
   - Application life cycle management overview
   - Object Manager
   - Duplicating projects and objects
   - Managing objects with Object Manager
   - Update packages
   - MicroStrategy Project Merge Wizard
2. Command Manager
   - Command Manager interfaces
   - Command Manager procedures
   - Connection modes
3. System Manager
   - Creating a workflow
   - Using parameters
   - Executing a workflow
4. Integrity Manager
   - Integrity Manager tests
   - Prompt resolution
   - Integrity Manager test analysis
10.621 Advanced Administration for Enterprise Mobility (1 day)

Course description
Optimize the Mobile server installation and deployment with advanced solutions for performance. Cluster your servers to improve performance, increase scalability, balance the load, and provide failover support for a mobile environment. You also get experience customizing apps, and enabling D3 visualizations, and push notifications in a mobile environment. Learn how to diagnose issues using mobile statistics.

Skills you gain
- Mobile server installation and configuration
- Mobile app deployment across different networks
- Clustering configuration in a mobile environment
- Mobile Server administration
- D3 visualization configuration in a mobile environment

MicroStrategy products covered
- MicroStrategy Mobile
- MicroStrategy Web
- MicroStrategy Developer

Right for you if
You are an administrator who wants advanced deployment and configuration solutions

Best class experience if you have
10.311 Administration for Enterprise Analytics
10.321 Administration for Enterprise Mobility

Topics
1. Deploying MicroStrategy Mobile
   - MicroStrategy Mobile overview
   - Installation and configuration of the Mobile server
   - Deployment of the MicroStrategy Mobile app
   - Establishing connectivity to a Mobile server
2. Clustering in a mobile environment
   - Clustering overview
   - Benefits of clustering
   - Clustering in a MicroStrategy Mobile environment
   - Intelligence Server clustering
   - Mobile server-Intelligence Server clustering scenarios
   - Mobile configuration
   - Working with dissimilar hardware
3. MicroStrategy Mobile administration
   - MicroStrategy Mobile Administrator
   - Customizing MicroStrategy Mobile apps
   - Working with firewalls
   - D3 visualizations in Mobile
   - Diagnostics recommendations
10.631 Advanced Administration for Enterprise Security (1 day)

Course description
Learn techniques to install, configure, and deploy Usher, manage user access with the Usher network, set up communication between Usher Server and secured assets with Usher gateways, provision badges to users, and Usherize physical access such as doors, and logical systems such as software applications. Learn about common Usher workflows you can use or build on in your environment.

Skills you gain
- Define user access in a network
- Secure physical access systems such as doors and logical systems such as web applications
- Configure user networks and identity badges
- Integrate with SAML-based applications such as Salesforce.com
- Diagnose administrator issues in user networks and iBeacons

MicroStrategy products covered
- MicroStrategy Usher

Right for you if
You are an administrator or security specialist who wants to implement the Usher identity application per your organization's requirements

Best class experience if you have
10.331 Administration for Enterprise Security

Topics
1. Usher installation and configuration
   - Usher Security platform components
   - Usher deployment options
   - MicroStrategy Cloud installation on AWS
   - On-premise installation
   - Configuring an Usher system
   - Recommended configurations
   - Usher components and commonly used ports

2. Managing users and access: Usher network
   - Defining user access: Usher networks
   - Usher network functionality
   - Usher gateway creation and implementation processes
   - Managing gateways
   - Digital certificate expiration notifications

3. Usherizing your environment
   - Usher workflows
   - Usherizing logical resources
   - Usherizing physical access resources
   - Adding users to the system
   - Diagnostics recommendations
10.712 MicroStrategy Engines & SQL (2 days)

**Course description**
Understand how the MicroStrategy Engine develops Structured Query Language (SQL) to gather data in a variety of reporting scenarios. Learn methods for tuning and optimizing report performance using Very Large Database (VLDB) properties.

**Skills you gain**
- SQL analysis
- SQL optimization techniques
- Create complex queries with SQL, using subqueries and intermediate tables
- Understand SQL behavior based on different objects on a report
- Manage the report execution process in a BI environment

**MicroStrategy products covered**
- MicroStrategy Developer

**Right for you if**
You are an advanced project designer or administrator who wants to optimize complex report and document designs for best performance

**Best class experience if you have**
10.412 Advanced Analytics Reporting
10.411 Project Architecting

**Topics**
1. Introduction to MicroStrategy engine
   - SQL generation process
2. Basic optimizations
   - Multi-SELECT statements
   - Composing optimized SQL
   - Attribute definitions and their impact on joins
   - Intermediate tables
3. Templates
   - Attributes
   - Hierarchies
   - Consolidations
   - Custom groups
4. Metrics
   - Non-aggregatable metrics
   - Conditional metrics
   - Transformation metrics
5. Filters
   - Attribute qualifications
   - Set qualifications
   - Metric qualifications
6. Analytical Engine
   - Role of the Analytical Engine
   - Processing a report limit
   - Subtotals
   - Compound metrics
   - Analytical functions
7. Introduction to VLDB properties
   - VLDB properties defined
   - VLDB Properties Editor
## 10.713 Advanced Data Warehousing (2 days)

**Course description**

Learn about advanced issues in data warehousing design and how to work with these complexities when implementing a MicroStrategy project. Understand how to model complex hierarchies and attribute relationships, implement role attributes and slowly changing dimensions, design the schema for optimal performance, use logical views to solve data modeling and schema design issues, and optimize query performance using both the database and MicroStrategy functionality.

**Skills you gain**

- Create data models
- Model complex hierarchies
- Implement role attributes and slow-changing dimensions
- Design schemas for optimal performance
- Create logical views
- Optimize query performance using database and application functionality

**MicroStrategy products covered**

- MicroStrategy Developer
- MicroStrategy Architect

**Right for you if**

You are an administrator, project architect, or a database administrator who has an interest in learning how to resolve complex data warehouse modeling and design issues to best support a MicroStrategy reporting environment.

**Best class experience if you have**

10.311 Administration for Enterprise Analytics

<table>
<thead>
<tr>
<th>Topics</th>
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</thead>
</table>
| 1. Introduction to Advanced Data Warehousing | • Data Warehouse design and reporting  
• Overview of Advanced Data Warehousing |
| 2. Advanced Schema Design | • Snowflake and star schemas  
• Recommended schema design |
| 3. Logical views | • Logical views in MicroStrategy Architect  
• Creating logical views  
• Using logical views to resolve data warehousing issues |
| 4. Many-to-Many relationships |  |
| 5. Attribute roles |  |
| 6. Hierarchies | • Ragged hierarchies  
• Split hierarchies  
• Recursive hierarchies |
| 7. Slowly Changing Dimensions (SCDs) | • Creating a life stamp  
• Using a hidden attribute |
DEVELOPER LEARNING PATHS

CERTIFICATIONS

Certified Specialist Developer
MCSD

Certified Master Developer
MCMD

Product: ANALYTICS  MOBILE  IDENTITY  |  Delivery method: INSTRUCTOR LED  E-LEARNING  VIDEO
10.212 Portal Integration (1 day)

Course description
Integrate MicroStrategy Web into portals such as Microsoft SharePoint, IBM WebSphere, and Oracle WebLogic using the Web SDK. Learn how to extend single sign-on within portals to create a seamless user experience.

Skills you gain
- Understand portal architecture and design
- Understand portlet-to-portlet functionalities
- Customize single sign-on authentication for portal and portlets
- Learn credential mapping
- Learn basic URL API to customize software behavior

MicroStrategy products covered
- MicroStrategy Web
- Portal integration features

Right for you if
You want to integrate MicroStrategy Web with portal systems

Best class experience if you have
10.111 Overview of Enterprise Analytics
10.213 SDK for Customizing Analytical Applications
Familiarity with Web standards such as XML

Topics
1. Introduction to MicroStrategy portal integration
   - Portal servers
   - Portlets
2. MicroStrategy portal architecture
   - Portlet life cycle and architecture
   - MicroStrategy out-of-the-box portlets
   - Portlet.xml
3. Portal-to-portlet communication
   - Portlet-to-portlet functionality
   - Enabling portlet-to-portlet communication
   - Portal SDK customizations
   - Customizing MicroStrategy content in portals
   - Customization approaches
   - Customizing single sign-on (SSO) authentication
4. Portlet URL communication
   - Introduction to URL API
   - Single sign-on with portals using URL API
10.213 SDK for Customizing Analytical Applications (2 days)

**Course description**

Learn how to take advantage of MicroStrategy Web APIs and SDKs to change Web behavior and look-and-feel. Create custom analytics applications and integrate analytics into any business application.

**Skills you gain**

- Plan customizations for MicroStrategy Web
- Eclipse Integrated Development Environment
- Web Customization Editor
- Create custom pages and links
- Create custom plug-ins and Web beans
- CSS
- Services-oriented architecture (SOA)
- Create styles, transforms, and layouts
- Visualization Builder
- External Security Module (ESM)

**MicroStrategy products covered**

- MicroStrategy SDK
- MicroStrategy Web

**Right for you if**

You are a software developer or technically-inclined business analyst who wants to customize the MicroStrategy Web interface and add extra functionality

**Best class experience if you have**

10.111 Overview of Enterprise Analytics
Java development experience
Eclipse experience

**Topics**

1. MicroStrategy SDK
   - MicroStrategy Web architecture
   - Page execution flow and customizable components
   - Plug-in architecture
2. Web Customization Editor plug-in
3. Customizing pages
   - Page configuration file
   - Page template and page sections
4. Web beans
   - Beans folder and properties
   - Styles and beans
5. Task infrastructure
   - Tasks and service-oriented architecture
6. Styles, transforms, and layouts
   - Data presentation
   - Transforms and styles
   - Layout definitions
   - Style catalog configuration file
   - Style Editor
7. Cascading style sheets
8. Visualization Builder
9. Customizing security
   - MicroStrategy Web authentication
   - MicroStrategy sessions
   - External Security Module
10.221 SDK for Customizing Mobile Applications (2 days)

Course description
Develop a deep understanding of MicroStrategy Mobile APIs & SDKs. Learn to create custom mobile applications and mobilize any existing business application.

Skills you gain
- Apple's Xcode development environment
- Plan customizations for MicroStrategy Mobile SDK
- Mobile architecture design and components
- Rebrand a mobile app
- Customize mobile app strings
- Associating appropriate frameworks and libraries
- Register a visualization
- Create a custom stock ticker widget
- Create a plug-in using Eclipse IDE
- Code an app to parse data into a view
- Create mobile configurations for different devices
- Deploy mobile configurations as a URL or embedded in the app
- Objective-C

MicroStrategy products covered
- MicroStrategy Mobile
- MicroStrategy SDK
- MicroStrategy Web

Right for you if
You are interested in customizing the Mobile app and adding functionality on both the client and server side

Best class experience if you have
10.213 SDK for Customizing Analytical Applications
10.121 Overview of Enterprise Mobility
Familiarity with iOS environment, Objective-C, and Java

Topics
1. Introduction
   - MicroStrategy SDK overview
   - Xcode overview
2. Customizing MicroStrategy Mobile
   - MicroStrategy Mobile architecture
   - Mobile workflow
   - Resource bundle
   - Customization scenarios
3. Preconfiguration, security, and authentication
   - MicroStrategy Mobile preconfiguration
   - Security and authentication
4. Custom app
   - Custom project
   - Adding functionality
5. Custom widgets
   - Creating a custom widget
10.231 SDK for Customizing Enterprise Security (1 day)

Course description
Inject security into every enterprise system, application, business process, and transaction. Use hands-on exercises to gain an understanding of the Usher APIs and SDKs and extend the core enterprise security network to every corner of the enterprise.

Skills you gain
- Security certificate generation and management
- Usher network creation and management
- Usher API calls
- Introduction to Xcode
- Introduction to SAML
- Introduction to authorization and authentication workflows

MicroStrategy products covered
- MicroStrategy SDK
- MicroStrategy Usher

Right for you if
You are a software developer or technically-inclined business analyst with a desire to customize your Usher system

Best class experience if you have
10.131 Overview of Enterprise Security
Mac computer
Apple ID account (iTunes account)
3 email accounts accessible from your iPhone
Digital .png photo (400 x 400 pixels) of you for your badge
Registered at developer.usher.com

Topics
1. Development tools
2. Creating an Usher security network and badge
   - Create an Usher network
   - Email Usher badges
   - SSL certificates and configuration
   - Register your custom application in Usher Network Manager
   - Configure signed security certificates on your server
   - Create a new Tomcat server with Eclipse
   - Enable client certificate support
   - Configure Tomcat context for an application
   - Configure a sample server
   - Implement sample server GetActivationCodeServlet
   - Log in with a QR code
3. QR code authentication work flow
   - SAML
   - Configure sampleSAMLizeWebApp
   - QR code authentication based on SAML
   - Enhanced badge
   - REST API web badge services
10.511 Advanced SDK for Customizing Visualizations (2 days)

Course description
Learn how to adapt D3 and other graphs so they are compatible with MicroStrategy and then integrate them into a dashboard. Create a new visualization from scratch, or use a visualization from the Internet. Incorporate advanced features like metric thresholds, customized drop zones, and custom properties. Explore complex real-world visualizations to appropriately and easily implement these features, and deploy them to other environments. Provides advanced customization techniques, including coding.

Skills you gain
• Analyze and write code in JavaScript
• Modify XML files, HTML, and CSS
• Use the visualization SDK API
• Introduction to D3 and SVG
• Create a D3 visualization and a plug-in
• Convert a D3 visualization to consume MicroStrategy data
• Define custom properties in a visualization

MicroStrategy products covered
• MicroStrategy SDK
• MicroStrategy Web
• MicroStrategy Desktop

Right for you if
You are an advanced SDK developer who wants to adapt visualizations and create new ones.

Best class experience if you have
10.111 Overview of Enterprise Analytics
10.213 SDK for Customizing Analytical Applications
JavaScript experience

Topics
1. Introduction to visualizations
   • MicroStrategy SDK, Visualization SDK, and Visualization Builder
   • Data visualization
   • D3.js for visualizations
2. Convert D3 visualizations
   • Data-driven documents
   • Sources of D3.js visualizations
   • Map data to MicroStrategy constructs in code
3. Create D3 visualizations
   • Use a basic template
   • Scalar Vector Graphics (SVG) primer
   • Creating a visualization
4. Exploit advanced visualization features
   • Use a visualization as a selector
   • Change the number of metrics and attributes
   • Change an icon
   • Define drop zones
   • Define custom properties
   • Use metric thresholds
5. Create advanced D3 visualizations
6. Explore complex visualizations
   • Testing the visualization
   • Custom Bar chart visualization
   • Custom Line chart visualization
   • Deploy D3 visualizations
10.512 Advanced SDK for Customizing Branding (2 days)

Course description

Learn how to create your own URL for custom navigation using the URL API. Create a page, a series of pages, your own prompt type, and a custom object, among other customization skills you will gain in this class. Design custom logic such as workflows. Learn how to customize services to achieve organizational efficiency and communication goals. Use beans, tasks, and events to modify the core behavior of MicroStrategy Web.

Skills you gain

• Eclipse IDE and the Web Customization Editor
• Write Java classes
• XML configuration files
• URL API and CSS
• Transforms, styles, new events, and add-ons
• Service-Oriented Architecture (SOA)
• Use tasks in plug-ins and create plug-ins

MicroStrategy products covered

• MicroStrategy SDK
• MicroStrategy Web

Right for you if

You are an advanced software developer who wants to fine-tune page and functionality customization

Best class experience if you have

10.213 SDK for Customizing Analytical Applications
Java experience

Topics

1. MicroStrategy SDK overview
   • MicroStrategy SDK
   • MicroStrategy Web architecture
   • D3.js for visualizations
   • Visualization Builder
2. Report execution and URLs
   • MicroStrategy Web page
   • Navigation (URL API)
3. Rendering and presentation of data
   • Beans
   • Transforms
   • Styles
4. Customizing specific features
   • Events
   • Add-ons
5. Task infrastructure and Service-Oriented Architecture (SOA)
   • Creating a task
   • Using a task
10.513 Advanced SDK for Integration and Single Sign-on (2 days)

Course description
Explore single sign-on (SSO) and its challenges in the enterprise. Allow users to submit credentials to authenticate and access MicroStrategy Web without entering additional credentials. Learn different approaches to implementing these methods in your organization. Covers External Security Modules, external debugging tools, and third-party portals to integrate MicroStrategy Web using the SSO methodologies learned. Includes hands-on exercises throughout the class.

Skills you gain
- Authentication and single sign-on workflow
- Web session management
- Usher External Security interface
- External Security Module (ESM)
- Intermediate Java skills
- Token validation and trusted authentication
- Implement user mapping with a database
- SQL Server database
- SQL Management Studio
- HTML, JavaScript, and external libraries
- Debugging methods with browser add-ons
- Implement a basic Liferay application portal

MicroStrategy products covered
MicroStrategy SDK
MicroStrategy Web

Right for you if
You are an advanced SDK developer who wants to integrate MicroStrategy with other systems in your infrastructure

Best class experience if you have
10.111 Overview of Enterprise Analytics
Java and HTML experience

Topics
1. Single sign-on: Concepts and workflow
   - Overview of Web SDK and SSO
   - Supported authentication providers
   - Authentication modes and workflows
   - Session creation and management
   - MicroStrategy user credentials
   - MicroStrategy SSO workflow
   - SSO implementation considerations
2. Customizing authentication
   - External Security Module (ESM)
   - Creating a custom ESM
   - Mapping a custom ESM to be used with MicroStrategy Web
   - Using a custom ESM for customizing authentication workflow
3. Validating users
   - How SSO uses authentication and validation
   - Customizing trusted authentication
4. Debugging your application or plug-ins
   - Analyzing your web applications
   - Web traffic analyzers
   - Introducing Tamper Data
5. SSO Implementation using a third-party portal
   - Using external portals
   - Customizing SSO with an out-of-the-box MicroStrategy portlet
10.521 Advanced Mobile Customizations with SDK (2 days)

Course description
Customize a MicroStrategy Mobile app for organizational identity, image, and messaging. Learn techniques for customizing app response and behavior. Augment the potential of MicroStrategy Mobile by synchronizing changes to apps across devices, for example to support a Command Center or Operations Center. Provides advanced customization techniques including coding examples.

Skills you gain

- Xcode and debugging techniques
- Create a mobile app and write code in Swift
- Mobile configurations in Mobile Server
- URL API for mobile
- Third-party app to generate branding assets
- Splash screen, intro animations, fonts
- Basic HTML, CSS, and JSON files
- Custom fonts in a mobile application
- XML documents
- Create a new Swift class with binding
- Install a toolchain in Xcode and use a toolchain to compile applications
- Custom appDelegate for a mobile app
- Use extensions to add functionality to a class

MicroStrategy products covered

- MicroStrategy SDK
- MicroStrategy Mobile

Right for you if
You are an advanced software developer who wants to use the Mobile platform to its fullest potential

Best class experience if you have

10.121 Overview of Enterprise Mobility
10.213 SDK for Customizing Mobile Applications
Swift experience
Two mobile devices (iPhone and/or iPad)

Topics

1. Introduction
   - Overview of MicroStrategy SDK
   - Xcode overview
2. Basic branding
   - Customizing MicroStrategy Mobile
   - Pre-configuring the mobile app
   - Adding credentials to the configuration
   - Changing app icons and splash screen
3. Advanced branding
   - Adding an animation to the app
   - Creating a custom help system
   - Using custom fonts
4. Using a custom AppDelegate
   - MicroStrategy Mobile's appDelegate
   - Creating a custom appDelegate
   - Adding functionality to the appDelegate
   - Using an embedded or hosted JSON file for content
5. Using Command Center for mobile
   - Use cases
   - Setting up Command Center
   - Command Center scope
   - Using Command Center: Starting, joining, and leaving a conference
Course description

Customize your applications to incorporate Usher’s security features using Usher’s API. Learn about Physical Access Control Systems (PACS) and leverage this type of system in common implementations. Explore beacons and how they can be deployed in your enterprise. Discover how PACS and beacons are combined for better integration with your applications and security structure. Learn to build a virtual dashboard that responds to your presence. Provides advanced customization techniques, including coding examples.

Skills you gain

- QR authentication workflow
- OpenSSL to generate security certificates
- JavaScript, basic HTML, and CSS
- Implement a custom PACS adaptor and the Usher PACS API
- Use JSON file format
- Install and configure a basic MySQL setup
- Create basic databases using SQL scripts
- Use the MySQL database
- Configure beacons and associate with PACS

MicroStrategy products covered

- MicroStrategy SDK
- MicroStrategy Usher

Right for you if

You are an advanced SDK developer who wants to use Usher to its fullest potential

Best class experience if you have

10.111 Overview of Enterprise Analytics
10.131 Overview of Enterprise Security
10.231 SDK for Customizing Enterprise Security

Java experience

Two mobile devices (phone and tablet, iOS or Android)

Topics

1. Introduction and overview of Usher SDK
   - Overview of Usher SDK
   - Usher platform architecture overview
2. Usherizing custom applications
   - QR code authentication workflow
   - Customizing authentication using Usher
   - Application flow
3. Usherizing a Physical Access Control System (PACS)
   - Custom PACS adapter for Usher
   - Physical access key
   - Building a PACS adapter
   - Usher PACS API
   - Walk-through: Implementing a custom PACS
   - Walk-through: Using a more robust PACS: UsherPACS
   - Categorizing the resources that are integrated with Usher
4. Usherizing beacons
   - Beacons
   - Using beacons with PACS
5. Custom applications for beacons
   - The vision
   - Base project
   - Tweaking the base project
   - Challenges
MicroStrategy 10 Certifications
SPECIALIST

10.011 MCSA Certification Project (1 day)
Validate your core skills across MicroStrategy’s reporting products, to design and create reports, visual interactive dashboards, boardroom documents, and mobile apps. Demonstrate your knowledge of fundamental MicroStrategy reporting concepts.

Suggested Pre-Courses (Each course offers an exam)
10.111 Overview of Enterprise Analytics (2 days)
10.112 Introduction to Analytics Reporting (2 days)
10.113 Visual Data Discovery - Visual Insight (2 days)
10.121 Overview of Enterprise Mobility (2 days)
10.131 Overview of Enterprise Security (1 day)
10.132 Enterprise Security Analytics (1 day)

10.019 MCSAD Certification Project (1 day)
Certifies your knowledge in foundational administration management of a MicroStrategy environment, using the appropriate tools to manage typical BI and mobile deployments and user authentication, system and object maintenance, and basic Big Data setup and management.

Suggested Pre-Courses (Each course offers an exam)
10.311 Administration for Enterprise Analytics (3 days)
10.312 Administration for MicroStrategy Cloud (2 days)
10.313 Introduction to Big Data (1 day)
10.321 Administration for Enterprise Mobility (1 day)
10.331 Administration for Enterprise Security (1 day)

10.013 MCSD Certification Project (1 day)
Demonstrate your skills in fundamental customizationscenarios, implementing common branding and logo changes using MicroStrategy’s SDK tools. Certify your ability to set up MicroStrategy reports within common portal technologies, and customize basic mobile app behavior per your organization’s requirements.

Suggested Pre-Courses (Each course offers an exam)
10.212 Portal Integration using SDK (1 day)
10.213 SDK for Customizing Analytical Applications (2 days)
10.221 SDK for Customizing Mobile Applications (2 days)
10.231 SDK for Customizing Enterprise Security (1 day)
10.012 MCMA Certification Project (2 days)
Certifies your expertise in designing and creating MicroStrategy’s business intelligence analytics applications. Demonstrate your comprehensive skills across project design and object creation, through to advanced reporting, documents, mobile applications, and data mining functionality.

Suggested Pre-Courses (Each course offers an exam)
- 10.411 Project Architecting (3 days)
- 10.412 Advanced Analytics Reporting (2 days)
- 10.413 Advanced Documents (2 days)
- 10.421 Advanced Mobile Applications (2 days)
- 10.711 Data Mining and Predictive Analytics (2 days)
- 10.431 Advanced Enterprise Security Analytics (1 day)

10.020 MCMAD Certification Project (2 days)
Validate advanced knowledge to perform enterprise system tuning, work with MicroStrategy Cloud configurations, and run Big Data implementations. Demonstrate your expertise to manage and administer complex business intelligence implementations.

Suggested Pre-Courses (Each course offers an exam)
- 10.611 Analytics Performance Tuning (2 days)
- 10.612 Advanced Big Data (1 day)
- 10.621 Advanced Administration for Enterprise Mobility (1 day)
- 10.631 Advanced Administration for Enterprise Security (1 day)

10.022 MCMD Certification Project (2 days)
Show your expertise in customizing MicroStrategy Web and Mobile with your organization’s complex branding requirements and implementing custom data visualizations. Demonstrate your skills setting up and running a single-sign-on implementation with MicroStrategy and common 3rd party authentication products.

Suggested Pre-Courses (Each course offers an exam)
- 10.511 Advanced SDK for Customizing Visualizations (2 days)
- 10.512 Advanced SDK for Customizing Branding (2 days)
- 10.513 Advanced SDK for Integration and Single Sign-on (2 days)
- 10.521 Advanced Mobile Customizations with SDK (2 days)
- 10.531 Advanced SDK for Enterprise Security (2 days)
## UPGRADING FROM V9 TO V10 CERTIFICATIONS

<table>
<thead>
<tr>
<th>I am a v9</th>
<th>Courses recommended</th>
<th>Required Project</th>
<th>v10 Certification I achieve</th>
</tr>
</thead>
</table>
| MicroStrategy CRD (Certified Report Developer) | 10.413 Advanced Documents  
10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.411 Project Architecting             | 10.012 MCMA Certification Project (formerly known as MCD Project) |                                            |
| MicroStrategy CDMD (Certified Dashboard and Mobile Developer) | 10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.411 Project Architecting  
10.412 Advanced Analytics Reporting | 10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.413 Advanced Documents  
10.412 Advanced Analytics Reporting |                                            |
| MicroStrategy CPD (Certified Project Designer) | 10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.413 Advanced Documents  
10.412 Advanced Analytics Reporting | 10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.413 Advanced Documents  
10.412 Advanced Analytics Reporting |                                            |
| MicroStrategy CES (Certified Engine Specialist) | 10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.413 Advanced Documents  
10.412 Advanced Analytics Reporting | 10.711 Data Mining and Predictive Analytics  
10.421 Advanced Mobile Applications  
10.413 Advanced Documents  
10.412 Advanced Analytics Reporting |                                            |
| MicroStrategy MCD (Certified Designer) | 10.000 What’s New in MicroStrategy 10                                                  | 10.016 Upgrade to v10 Certification                  |                                            |
| MicroStrategy CPA (Certified Platform Administrator) | 10.313 Introduction to Big Data  
10.321 Administration for Enterprise Mobility | 10.313 Introduction to Big Data  
10.321 Administration for Enterprise Mobility | 10.019 MCSAD Certification Project (Required) |
| MicroStrategy CPE (Certified Platform Engineer) (amalgamation of all v9 certs) | | This type of certification is not offered in v10. |                                            |
EDUCATION ACCESS OPTIONS

The successful implementation and deployment of any project is dependent on the knowledge and skills of those implementing. Empower your workforce, facilitate enterprise success, and stay up to date with MicroStrategy Education and create project success with a variety of Education purchase options.

PERENNIAL EDUCATION PASSES (PEPs)

The Perennial Education Pass (PEP) is a 12-month user subscription that provides unlimited access to our comprehensive course catalog.

Benefits:
- Access to Instructor led delivery (Online & in global MicroStrategy locations), E-learning modules, & recorded instructor led courses
- Stay ahead or advance your skills with our quarterly course updates and new course additions
- Learn at your own pace
- Build & validate knowledge with Learning paths, and certifications for Analysts, Developers & Administrators

PEPs are priced at $3,500 per named user and are perfect for organizations that plan on more than five days of training for individuals on an annual basis.

Our teams will work with you to provide the right Education offering. To find out how to get started, talk with your Account Executive or contact the Education department directly at: education@microstrategy.com. You can also visit us online through the MicroStrategy learning portal at microstrategy.csod.com.

TRAINING UNITS (TUs)

Our clients’ needs are unique – their Education packages should be too. Training Units are ideal for customers who wish to have MicroStrategy Instructors onsite for training Developers, Administrators and power users, or customers implementing MicroStrategy for the first time.

Benefits:
- Access to customer onsite training delivery for up to 20 students at 54 Training units/days
- Access to all training options you have with a PEP and ideal for customers who do not plan to purchase more than five days of total training.

With Training Units (TUs), you can purchase $100 “gift cards” and redeem them on courses, certifications or type of training delivery most applicable for your team. Anticipating more training needs this year? Buy TUs in bulk to ensure employee skills will be developed to align with your strategic goals. Pricing for individual courses can be found on the summary page of the catalog.
**ENTERPRISE E-COURSEWARE OFFERING**

We recognize that time and adoption is a commodity for our customers. Our Enterprise E-courseware offering is ideal for organizations with more than 30 web licenses and looking to drive MicroStrategy adoption across the Enterprise.

**Benefits:**
- Self-paced learning that mirrors Instructor-led courses
- Simulations in MicroStrategy environments
- Quizzes to track progress
- Host on internal LMS system
- Tiered pricing based on number of MicroStrategy web licenses
- Discounted pricing for customers who want to “upgrade” to the new E-courseware version of a purchased course

**Available E-courseware Modules**
(Modules in bold to be released in FY 2017)

- 10.112 Intro to Analytics Reporting
- 10.113 Visual Data Discovery: Visual Insight
- 10.413 Advanced Documents: Interactivity and Joining Datasets
- 10.115 Basics of Project and Object Design
- 10.414 Advanced Project and Object Design
- 10.114 Visual Data Discovery: MicroStrategy Desktop
- 10.111 Overview of Enterprise Analytics
- 10.411 Project Architecting
- 10.412 Advanced Analytics Reporting
- 10.121 Overview of Enterprise Mobility

**Pricing:**

**First time E-courseware purchase**
- Up to 249 licenses: $10K
- 250-499 licenses: $20K
- 500+ licenses: $30K

**Upgraded E-courseware purchase**
- Up to 249 licenses: $7.5K
- 250-499 licenses: $15K
- 500+ licenses: $20K

Our teams will work with you to provide the right Education offering. To find out how to get started, talk with your Account Executive or contact the Education department directly at education@microstrategy.com. You can also visit us online through the MicroStrategy learning portal at microstrategy.csod.com.

* E-courseware can be customized with customer data for an additional cost
FAQ and Catalog Summary
MICROSTRATEGY EDUCATION FAQ

Q. How do I register for a Jump Start class?
A. You can learn more about the Jump Start program and register for the free classes nearest your location at: https://www.microstrategy.com/us/services/education/jump-start-classes#

Q. How do I register for a paid class?
A. You can register, pay for, and manage all your classes within the Learning Portal, located at: https://microstrategy.csod.com

Q. What is the MicroStrategy Learning Portal?
A. The Learning Portal is an online Learning Management System where you can register, purchase and manage all your education needs. Each user has their own transcript showing completed and upcoming classes. You can access the Learning Portal at: https://microstrategy.csod.com

Q. What is a PEP?
A. A Perennial Education Pass (PEP) is a 12-month user subscription that provides unlimited access to our comprehensive course catalog. PEPs are priced at $3,500 per user, making them the best value in MicroStrategy Education.

Q. How is a PEP different from a TU?
A. With Training Units (TUs), you can purchase $100 gift cards and redeem them on any course, certification, or private training for your team. Anticipating increased training this year? Buy TUs in bulk to ensure employee skills will be developed to align with your strategic goals.

Q. Can I purchase individual courses?
A. Know the exact course you need to take? You can purchase courses à la carte through the MicroStrategy Learning Portal. Each day of training costs $700.

Q. Where can I get more information on my purchasing options?
A. The latest details about these options can be found at: https://www.microstrategy.com/us/services/education#purchasing-options

Q. How long is a certification project?
A. For a specialist level certification, the project is one day while a master level certification project takes two days.

Q. What happens to my v9 certification? Is it still valid?
A. Yes, you are still certified in v9. With the advent of MicroStrategy 10, we encourage you to be certified in version 10 to augment your MicroStrategy expertise. See the diagram on the page 53 on how you can align your current certification into a version 10 certification.

Q. What language(s) are available for certification projects?
A. All certification projects are currently offered in English only.

Q. What happens if I do not pass the certification project?
A. If you do not pass a certification project, you must re-attempt it and pass it to get your certification. You may want to refresh your knowledge base by attending the recommended classes.

Q. Do I have to take classes to take a certification project?
A. It is not required to take the supporting classes. However, the suggested classes are strongly recommended as they prepare for the certification projects by providing you with the proper knowledge in the various topics related to the certification project.

Q. Why do certifications no longer require comprehensive exams?
A. MicroStrategy raised the standards for certification by using a project based approach to evaluate the skills of a candidate for certification. This way, you can prove your knowledge in a practical way rather than a series of theoretical questions.

Q. I am a Certified Platform Engineer (CPE) in v9, is there a v10 Engineer certification?
A. No. MicroStrategy does not offer a certification that includes all other certifications in one. Because of the wide variety of roles, each participant determines the area of expertise they want to certify on and selects a unique certification to do so.
Q. How do I prove my certification to a third party?
A. You can print your transcript and certificate from The Learning Portal, or you can use the MicroStrategy Certified badge you earned on your résumé or business card. Make sure you follow the badge usage guidelines.

Q. What is the passing grade for a certification project?
A. 80%.

Q. What resources are allowed during a certification project?
A. You may use your course manuals, MicroStrategy online help, MicroStrategy product manuals, and the MicroStrategy Knowledge Base for assistance in completing the project. However, you may not ask anyone for assistance. See the certification manual for more specific rules on your certification.

Q. I don’t have time to dedicate full days to training right now. Is there still an option that can help me learn more about the tool?
A. Absolutely! We have a growing offering of our full-length courses that have been turned into self-paced options. These are modeled off the same great content as instructor led courses but allow you to work at your own pace. These interactive modules can also be embedded in your company’s LMS for tracking purposes and include quizzes and hands-on simulations as well as the ability to bookmark and search for meaningful topics.

Q. Who should I contact for general questions about MicroStrategy’s education offerings or to schedule training?
A. You can email us at education@MicroStrategy.com or reach us toll free, Monday-Friday at 1-877-232-7168 from 3am EST-5pm EST.
## Catalog Summary

<table>
<thead>
<tr>
<th>Class Name</th>
<th>DAYS</th>
<th>PRICING</th>
<th>FORMAT</th>
<th>LANGUAGES COVERED</th>
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<tr>
<td>10.000: What's New in MicroStrategy 10</td>
<td>2</td>
<td>1400 14 Free</td>
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<td>10.112: Introduction to Analytics Reporting</td>
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<td>10.118: Advanced Reporting</td>
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<td>10.119: Enterprise Applications</td>
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<td>10.121: Overview of Enterprise Mobility</td>
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<td>10.212: Portal Integration using SDK</td>
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<td>10.213: SDK for Customizing Analytical Applications</td>
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<td>Advanced SDK for Customizing Enterprise Security</td>
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<td>Advanced Big Data</td>
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<td>Advanced Administration for Enterprise Mobility</td>
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<td>Advanced Administration for Enterprise Security</td>
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<td>Data Mining and Predictive Analytics</td>
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<td>MicroStrategy Engines and SQL</td>
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<td>Advanced Data Warehousing</td>
<td>2</td>
<td>1400</td>
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MicroStrategy Education Team
MEET “THE SCRIBES”

i.e. our Curriculum developers

Our residential nerds and misfits with unique personalities responsible for bringing you a ton of awesome content.

Name: Davida Kosa
Title: Senior Curriculum Developer
Location: Tysons, VA

**Expertise:** 17 years at MicroStrategy writing technical content. Passed boot camp when it was 6 weeks long and required creating a project from scratch (including loading data with SQL) and a dress-for-an-interview presentation in front of your boss. Started working on MicroStrategy 6.x; wrote about Report Services documents since their inception.

**Content Focus:** Analytics classes: VI dashboards, documents, reports, and the project objects to create them, from specialist through expert levels.

**Certifications:** MicroStrategy technical boot camp; Professional Writing and Technical Communication from University of Massachusetts, Amherst.

**Interesting Fact/Hobby:** When I was a kid, I was sure I was going to write books when I grew up. I just didn't know that they would be instruction manuals and course guides instead of mysteries and dragon-slaying quests to save the elven world.

Name: Gilles Duval
Title: Senior Curriculum Developer
Location: Tysons, VA

**Expertise:** Technical challenges within the department and his personal life. Has programming skills spreading from VB6 to Java and .NET. Recently added Swift to the list. Graphical skills in many tools including FrameMaker, Visio and others.

**Content focus:** SDK classes for Analytics, Mobility and Identity

**Certifications:** Intel Retail Professional, Geek Squad Repair Agent (Platinum)

**Interesting Fact/Hobby:** Reading and programming are my ways to relax. I build computers as well. If there is a CPU inside, I’m interested. Parle français couramment: Bonjour à tous!

Name: Rakesh Arora
Title: Senior Principal Curriculum Developer
Location: Tysons, VA

**Expertise:** MicroStrategy administration and project architecting

**Content Focus:** MicroStrategy administration and Usher-related courses

**Certifications:** MicroStrategy Certified Engineer (MCE)

**Interesting Fact/Hobby:** I am a fan of the Washington Capitals.

Name: Michal Maliszewski
Title: Principal E-learning Curriculum Developer
Location: Warsaw, Poland

**Expertise:** Managing the production of eLearning content, software engineering and databases, game development, graphics, and multimedia.

**Content Focus:** Whatever the problem is, I'm going to fix it.

**Certifications:** Microsoft programming courses: C#, ASP.NET, SQL Server, Visual Studio .NET. Awards from major Polish photography portals: picture of the day—4 times, distinguished author—2 times, distinguished photos award—14 times, 1st and 3rd place in photographic competitions at fotopolis.pl and mmwarszawa.pl.

**Interesting Fact/Hobby:** I follow Major League Baseball, technology geek stuff, soccer, cycling, snowboarding, sailing, classic cinema, music, a good book, a glass of good whisky or a craft beer.

Name: Lauren Burger
Title: Curriculum Developer
Location: Tysons, VA

**Expertise:** MicroStrategy mobile. Led MicroStrategy implementation and education for former employer. Taught English to Chilean college students who didn’t want to learn English. Degrees in English and Spanish.

**Content Focus:** Mobile, Desktop, and Jump Start.

**Certifications:** MicroStrategy boot camp, TEFL.

**Interesting Fact/Hobby:** I love to travel even though I almost got stranded on an island in Colombia and had to take a boat full of trash back to Cartagena. I really enjoy reading. I typically read at least one book a week. I’ll read anything you put in front of me, but magical realism and historical fiction are my favorite genres.
MEET “THE LEAGUE OF EXTRAORDINARY GENTLE-WOMEN/MEN”

i.e. The Training Delivery team

They bring a combined 100 years of MicroStrategy experience and can teach 40 courses in 15 different languages. Need I say more?

Name: Mateusz Czopek
Title: E-learning Developer
Location: Warsaw, Poland
Expertise: E-learning specialist with 7+ years of experience in e-learning development and project management. Authoring tools like Adobe Captivate, Articulate Storyline, Camtasia etc. are my everyday life.
Content Focus: I'm responsible for creating modern, engaging e-learning trainings in different forms: web based trainings, video trainings etc.

Interesting Fact/Hobby: I have BA in Economics, but I've never worked in that industry. I'm a huge fan of soccer and speedway (4 guys riding the motorcycles without brakes competing over four anti-clockwise laps of an oval circuit).

Name: Roxana Schoen
Title: Senior Director, Curriculum Development
Location: Tysons, VA
Expertise: Roxy has 15 years of MicroStrategy experience writing and managing technical content (user guides, class lectures and exercises) across Analyst, Project Design, Administration, and SDK Developer products.
Content Focus: Advocating the user perspective for our software, instruction manuals, and classes.
Certifications: MicroStrategy Certified Business Intelligence Consultant
Interesting Fact/Hobby: I've gotten 2 World of Warcraft characters to level 85 (when the cap was 85). In real life I shoot a 16lb traditional recurve (no sight, no rest, no tech.)

Name: Anahi Serrano
Title: Senior Training Consultant
Location: Phoenix, AZ
Expertise: Developer and Administration
Courses Taught: Analyst and Master Level Analytics and Administration courses.
Certifications: MicroStrategy Certified Designer (MCD)
Languages Spoken: Spanish, English
Interesting Fact/Hobby: I love challenges and opportunities to learn something completely new. Whether social, educational, physical activities, food, you name it, I enjoy trying new things.

Name: Doug TerBush
Title: Training Consultant
Location: Chicago, IL
Expertise: 10+ years hands on end to end MicroStrategy development/training: Installation/configuration, Administration, requirements gathering, data modeling, SQL tuning, MicroStrategy schema design, and MicroStrategy report/document/dashboard design
Courses Taught: Analyst, Master, and Expert level Analytics and Administration classes, as well as Analyst and Master level SDK.
Certifications: MicroStrategy Certified Designer (MCD)
Languages Spoken: English
Interesting Fact/Hobby: I was an Army EOD tech with deployments to Bosnia and Iraq.
Name: Faical Mhijan  
Title: Training Consultant  
Location: San Francisco, CA  

**Expertise:** I have a B.A. in Communication and a B.A.S in Information Management-Database Administration. I have strong hands-on experience in technical support and data analysis. I am also trilingual.  

**Courses Taught:** I currently teach Jump Start classes and all Analyst level courses.  

**Certifications:** MicroStrategy Certified Analyst (MCA), Certified Designer (MCD), and Oracle 11g SQL Fundamentals  

**Languages Spoken:** French, English, Arabic  

**Interesting Fact/Hobby:** I enjoy reading, travelling (have been in more than 30 countries around the world). I am also a pilot amateur of the Cessna 172 (25 hours in my record).  

Name: Francisco de la Cruz  
Title: Training Consultant  
Location: Atlanta, GA  

**Expertise:** Business Intelligence professional with 7+ years of experience in Financial/Public Services and Consumer Goods. Experience working in both back end (ETL/DWH) and front end (reporting) layers with a different number of technology tools including MicroStrategy. Worked in the consulting industry for 4+ years. Holds a bachelor’s degree in Electronic Systems Engineering at ITESM Campus Monterrey and is an MBA Candidate 2018 at EGADE Business School.  

**Courses Taught:** Jump Start program, Analyst level Analytics courses, and some master level Analytics and Administration courses.  

**Certifications:** IBM WebSphere Integration Developer (WID), and MicroStrategy Certified Designer (MCD)  

**Languages:** I speak Spanish (native language), English, and some French.  

**Interesting Fact/Hobby:** I’m married and have a daughter called Natalia, I love spending time with my daughter and have a big passion for (fútbol) soccer. I’m based in Atlanta, GA, covering Charlotte, NC as well.  

Name: Jaime Garcia  
Role: Training Consultant  
Location: Dallas, TX  

**Expertise:** MicroStrategy products, Oracle Middleware 11g, Firmware and embedded engineering, and Oil & Gas and Manufacturing Hi-Tech instrumentation  

**Courses Taught:** Jump Start courses as well as all Analyst level Analytics courses and some Master level Analytics and Administration courses.  

**Certifications:** Certified MicroStrategy Analyst (MCA), Certified MicroStrategy Designer (MCD), Oracle Exalogic Elastic Cloud Specialist, and Oracle Access Management Suite Plus 11g Specialist  

**Languages Spoken:** English, Spanish  

**Interesting Fact/Hobby:** I enjoy soccer, hiking, and Ruby on Rails programming.  

Name: James Pollard  
Title: Senior Training Consultant  
Location: Grant Pass, OR  

**Expertise:** Creating customized demos, exercises, quizzes, tests, and projects using customer data.  

**Courses Taught:** Analyst, Master, and Expert level courses in Analytics and Administration. SDK will soon be added to this list.  

**Certifications:** MicroStrategy Certified Designer, and TESL (Teaching English as a Second Language) Canada Certificate  

**Languages:** English, French  

**Interesting Fact/Hobby:** Online collaborative learning, organizer of a beach volleyball Meetup group, and self-taught music theorist/pianist.
Name: Joe Timchenko  
**Title:** Training Consultant  
**Location:** Los Angeles, CA

**Expertise:** I have a Master of Public Policy in Economics from Pepperdine University. I have a background in Econometrics/Data Modeling, SQL on Big Data to measure how digital tools influence consumer path to purchase, database architecture, data mining, predictive analytics, and reporting.

I am a former faculty member at the National Hispanic University, American History, Polsci, San Jose, CA. I am also certified bilingual and CPR/1st Aid Instructor by American Red Cross.

**Courses Taught:** Currently teaching Analyst and Master level Administration and Analytics courses, will be teaching the entire course catalog soon.

**Certifications:** MicroStrategy Certified Designer (MCD), and Russian Language Certification

**Languages:** English, Spanish, Russian, learning Armenian and Brazilian Portuguese

**Interesting Fact/Hobby:** Recruited by Urban Myer and played football at BGSU. My passion is language, programming and spoken. 3rd generation, I learned Russian in school in part to honor my great-grandmother who interpreted for the Eisenhower administration. My job is my hobby because it’s something I love doing.

Name: John Merideth  
**Title:** Senior Training Consultant  
**Location:** Bedford, NH

**Expertise:** Background includes 30+ years of teaching and 40+ years of technical skills and experience. Has worked as a database administrator, network administrator, programmer and IT manager.

**Courses Taught:** Can teach all Analyst, Master, and Expert level courses across all topics.

**Certifications:** MicroStrategy Certified Designer (MCD) Platinum, and Training certifications from Comptia, Microsoft, and Citrix

**Languages:** Fluent in English, Geek and US Navy

**Interesting Fact/Hobby:** I reside with my wife in New Hampshire, and am a retired US Navy mustang. A navy mustang is someone who started their career as enlisted and then was promote to the officer ranks. In my spare time, I enjoy writing iOS applications and am a big Apple fan boy.

Name: Kevin Thompson  
**Title:** Training Consultant  
**Location:** Tysons, VA

**Expertise:** Previously worked in Technical Support on the Client and Usher teams prior to joining Education. Resulting knowledge and direct experience working with and troubleshooting the clients, tools, and engines, as well as all Usher platform components.

**Courses Taught:** Most Analyst, and some Master, level Analytics and Administration courses

**Certifications:** MicroStrategy Certified Analyst (MCA), and MicroStrategy Certified Designer (MCD)

**Languages:** English

**Interesting Fact/Hobby:** I am a classically trained percussionist, and have performed in orchestras and music festivals across the US and internationally.

Name: Luiz Walther di Pietro Filho  
**Title:** Training Consultant  
**Location:** Sao Paulo, Brazil

**Expertise:** Graduated in Electrical Engineering and MBA in Industrial Automation, worked for the last 12 years in BI and Data Engineering companies, as Technical Trainer and Field Service Engineer in the whole LATAM, delivering training in Portuguese, Spanish and English. Special interest and expertise in Data Science with Internet of Things and Industrial Asset Management.

**Courses Taught:** Focus on Jump Start and Analytics courses.

**Certifications:** MicroStrategy Certified Designer (MCD), and MS SQL Server Database Development

**Languages:** Portuguese, English, Spanish

**Interesting Fact/Hobby:** I love D20 RPG games such as Dungeons and Dragons and World of Warcraft, as well as Flashback Music from ’60 to ’00.
Name: Richard Kapupu  
Title: Training Consultant  
Location: Toronto, ON

Expertise: Project Management, Business Analysis, Education

Courses Taught: All save for OEM and SDK classes (so far).

Certifications: MicroStrategy Certified Designer (MCD), and PGCE

Languages: English, French, SiSwati, Zulu

Interesting Fact/Hobby: I embarked on learning Chinese at the same time as I started my career with MicroStrategy.

Name: Stephen Goodson  
Title: Senior Training Consultant  
Location: Brooklyn, NY

Expertise: Over 25 years of Business Intelligence experience providing training and consulting services. My roots are in the securities industry where I spent 10 years as a data analyst and trainer specializing in mortgage and debt securities. My initial BI experience included analyzing mortgage-related data for securities industry clients. I specialize in training needs assessment and the development and delivery of private training engagements.

Courses Taught: Can teach all MicroStrategy courses.

Certifications: MicroStrategy Certified Designer (MCD)

Languages: English

Interesting Fact/Hobby: I'm a third-generation native Texan (Houstonian, to be precise) and the first music concert I attended was The Beatles, Houston, TX, August 1965. (My grandmother won the tickets in a local grocery store drawing).

Name: Michelle Galatis  
Role: Manager, Americas Education Delivery  
Location: Tysons, VA

Expertise: I started off as a Curriculum Developer at MicroStrategy and was responsible for creating the Jump Start courses, as well as our Mobile courses. I have a background in curriculum development, training, sales, customer service, and building IKEA furniture.

Courses Taught: I taught Dashboards and Data Discovery while I was a Curriculum Developer. I can also teach Jump Start and non-SDK Mobile courses.

Languages: English

Interesting Fact/Hobby: I like to spend my free time lifting weights or playing sports.

Name: Asma Chatibi  
Title: Training Consultant  
Location: Paris, France

Expertise: Helping and supporting customers to reach their training goals by performing needs analysis and creating training proposals.

Courses Taught: Analyst level Analytics and Administration classes.

Certifications: MicroStrategy Analyst Specialist, MicroStrategy Administrator Specialist, and Blended Learning Fundamentals

Languages: French, Arabic, English

Interesting Fact/Hobby: I don’t have dreams, I have goals.

Name: Bee Hua Goh  
Title: Training Consultant  
Location: Singapore

Expertise: Multiple Regression Modeling, Time Series Analysis and Forecasting, Application of Decision Support Methods (eg. Decision Trees, Artificial Neural Networks, Simulation), and Data Mining

Courses Taught: All Analyst, and some Master, level Analytics and Administration classes.

Certifications: MicroStrategy 10 Certified Analyst (MCA), MicroStrategy 10 Certified Designer (MCD), and MicroStrategy 10 Certified Platform Administrator (MCPA)

Languages: English, Mandarin

Interesting Fact/Hobby: During the evenings, we enjoy taking long walks with my dog, Brad, to relax and wind down the day. Brad gets all excited when we say the words “Let’s Go” every time.

Name: Chantal Moss  
Title: Training Consultant  
Location: Johannesburg, South Africa

Expertise: Programming (Delphi), SQL, MicroStrategy Report and Document Development.

Courses Taught: Analyst, and some Master, level Analytics and Administration courses.

Certifications: MicroStrategy Certified Engineer (MCE) v.941, MicroStrategy Certified Designer (MCD), and Computer Programming

Languages: English

Interesting Fact/Hobby: Dancing, keeping fit and spending time with my family.
Name: Greg Butler  
**Title:** Senior Training Consultant  
**Location:** London, England  

**Expertise:** Training Delivery  
**Courses Taught:** A variety of Analytics and Administration courses across many levels.  
**Certifications:** MicroStrategy Certified Engineer (MCE) v.9, and MicroStrategy Certified Designer (MCD)  
**Languages:** English  
**Interesting Fact/Hobby:** I am a keen photographer and I play league squash.

Name: Haoting Huang (Jackie)  
**Title:** Training Consultant  
**Location:** Hangzhou, China  

**Expertise:** I got my master’s degree in Electrical Engineering from University of Sydney. I also have a diploma in Translation. Before I joined MicroStrategy, I was working in technical support at a company named Initial C Technology in Sydney. At Initial C Technology I was in charge of providing technical training for company new hires. I joined MicroStrategy in July 2016 as a training consultant.  
**Courses Taught:** I have successfully provided several Jump Start sessions in Hangzhou, Shanghai and Beijing in China. I have also provided onsite customization course training for Standard Chartered bank China and Lenovo. In 2017, I will continue teaching Jump Start courses in China, including covering southern China, such as Guangzhou and Shenzhen.  
**Certifications:** MicroStrategy Certified Designer (MCD)  
**Languages:** English, Mandarin  
**Interesting Fact/Hobby:** I like reading a lot, I am a huge fan of crime stories. I love sports, especially martial arts. I have a black belt in Taekwondo, and am currently also doing Kendo.

Name: Igor Freitas  
**Title:** Training Consultant  
**Location:** Barcelona, Spain  

**Expertise:** MicroStrategy Reports, Dashboards, Documents, Architect, Business Intelligence, Data Warehouse  
**Courses Taught:** Jump Start courses as well as Analytics and Administration courses.  
**Certifications:** MicroStrategy Certified Analyst Specialist  
**Languages:** English, Spanish, Portuguese  
**Interesting Fact/Hobby:** I like to spend time with my wife and friends for some fun activities, like traveling, going to the beach, watching football games and eating. I love kids (although I don’t have my own) and my favorite food is pizza!

Name: Jean-Francois Simonis  
**Title:** Training Consultant  
**Location:** Sydney, Australia  

**Expertise:** Familiar with some of the SAP product suite, Consulting Engineer within the mining and manufacturing industry, Business Analyst, project management experience within the financial services industry.  
**Courses Taught:** Jump Start and Analytics courses  
**Certifications:** MicroStrategy Certified Designer (MCD)  
**Languages:** English  
**Interesting Fact/Hobby:** I am a commercial pilot with a twin-engine rating.

Name: Kisun Kim  
**Title:** Training Consultant/Suseok(Korean word)  
**Location:** Seoul, Korea  

**Expertise:** IBM ISAS MPP Database, Pentaho BI Stack, Big Data Hadoop - Cloudera  
**Courses Taught:** Jump Start, Analytics, and Administration classes.  
**Certifications:** Engineer Information Processing (Korean Public Certification), ITIL Foundation - Office of Government Commerce (OGC)  
**Languages:** Korean, English  
**Interesting Fact/Hobby:** Playing the trumpet in a classical wind band.
Name: Myriam Rielau  
**Title:** Senior Training Consultant  
**Location:** Cologne, Germany  

**Expertise:** Business Intelligence, Customer Relationship Management  

**Courses Taught:** Jump Start and a variety of Analytics and Administration courses.  

**Certifications:** MicroStrategy Certified Platform Administrator (MCPA), and MicroStrategy Certified Engineer (MCE)  

**Languages:** German, English, French  

**Interesting Fact/Hobby:** I love gardening.

Name: Pedro Marco Ortega  
**Title:** Training Consultant  
**Location:** Madrid, Spain  

**Expertise:** Cloudera Data Analyst, MicroStrategy Designer, Oracle (SQL, PL/SQL, Forms & Reports, Oracle Administration 8i, 9i, 10g, 11g, 12c), and Oracle Discoverer), Relational Database Design, MySQL, basic knowledge in Java, Internet, and HTML  

**Courses Taught:** Analyst and some master level Analytics and Administration courses.  

**Certifications:** Oracle Database 12c Administrator Certified Associate, Oracle Database SQL Certified Expert, Cloudera Certified Administrator for Apache Hadoop (CCAH), and MicroStrategy 10 Certified Designer (MCD)  

**Languages:** Spanish, English  

**Interesting Fact/Hobby:** Music, movies, Internet, travelling, and computers.

Name: Reza Ghandchi  
**Title:** Training Consultant  
**Location:** Dubai, UAE  

**Expertise:** Data Warehouse Architecture, Performance Tuning, and Report & Document Development  

**Courses Taught:** Jump Start and a variety of Analytics and Administration courses.  

**Certifications:** MicroStrategy Certified Analyst (MCA), Certified Project Designer, Certified Report Designer, Certified Dashboard and Mobile Designer, Certified Platform Administrator, and MicroStrategy Certified Engineer (MCE)  

**Languages:** Farsi, English  

**Interesting Fact/Hobby:** When I enter a room, and cannot remember why I came there or what I was looking for, I walk backwards till I remember. I am also an amateur in astronomy and chess.

Name: Shizuka Harada  
**Title:** Training Consultant  
**Location:** Tokyo, Japan  

**Expertise:** Business Intelligence and training delivery.  

**Courses Taught:** Jump Start and a variety of Analytics courses.  

**Certifications:** MicroStrategy Certified Designer (MCD)  

**Languages:** English, Japanese  

**Interesting Fact/Hobby:** I am a drummer in the Tokyo Pipe Band (Scottish Bagpipe Band in Tokyo).

Name: Stefano Sartorio  
**Title:** Training Consultant  
**Location:** Milan, Italy  

**Expertise:** +16 years in MicroStrategy pre-sales department before joining the Education family. Expertise in prospect management, sales and technical presenting skills, and proof of concept development and management. I also have experience with project macro-analysis, partners coaching, technical proposals, and post-sales activities.  

**Courses Taught:** A variety of Analytics, Mobile, and Security courses in a wide range of roles.  

**Languages:** Italian, English  

**Interesting Fact/Hobby:** I’m a trumpet player; I have experience in several contexts, ranging from my town’s philharmonic group, to a big jazz big band, to some rhythm and blues groups… every experience was different and satisfying!
Name: Hans-Joachim (Hanjo) Diedrich  
*Title: Senior Training Consultant*

**Expertise:** 10+ years as a MicroStrategy Educator, Data Warehouse Architecture, Performance Tuning, Report & Document Development, MicroStrategy Administration, and SDK

**Courses Taught:** Analyst, Mobile, and Security courses

**Certifications:** MicroStrategy Certified Engineer (MCE), MicroStrategy Certified Analyst (MCA), Certified Project Designer, Certified Report Designer, Certified Dashboard and Mobile Designer, and Certified Platform Administrator

**Languages:** German, English

**Interesting Fact/Hobby:** Home-improvement (there is always something to do if you have a house), music (listen & play).

Name: Karl Doll  
*Title: Manager, International Education Delivery*  
*Location: Cologne, Germany*

**Expertise:** 18 years with the company as a MicroStrategy Trainer & Education Manager, Customer Education plan development, Onsite engagement content discussions & sizing, Data Warehouse Architecture, Report & Document Development, and Administration

**Classes Taught:** (taught part time until 2015) Mostly v9 and v10 Analyst and Administration classes

**Certifications:** MicroStrategy Certified Designer (MCD) v9 and v10

**Languages:** German, English

**Interesting Fact/Hobby:** Passionate basketball player & coach, skiing, cycling, and my motorbike.

MEET “THE CONCIERGEs”

*i.e. The Education Customer Service team*

A small team and a plethora of MicroStrategy customers…”The Concierges’ say bring it on!

Name: Ryann Hart  
*Title: Jump Start Education Coordinator*  
*Location: Tysons, VA*

**Expertise:** My specialty on the education team is coordinating and managing the Jump Start program, scheduling and coordinating course sessions, and administering the MicroStrategy Learning portal!

**Languages:** English

**Interesting Fact/Hobby:** I enjoy exercising and hanging out with family & friends in my free time. I also recently started learning Brush Pen Calligraphy. My interesting fact is that I used to be a cheerleader and I can still tumble around & stunt like I used to.

Name: Romualda Cwiek  
*Title: Education Operations Coordinator*  
*Location: Warsaw, Poland*

**Expertise:** Education

**Languages:** Polish, English, German, French

**Interesting Fact/Hobby:** Chess.

Name: Iga Reszke  
*Title: Education Operations Coordinator*  
*Location: Warsaw, Poland*

**Expertise:** Helping and supporting customers in their request on education, making sure they receive an excellent customer experience, providing them with all information on MSTR trainings.

**Languages:** Polish, English, Spanish A2 and learning Swedish

**Interesting Fact/Hobby:** Yoga, cycling, travelling, exploring new interesting places in the world, meeting and cooperating with people worldwide.

Name: Alex Kolankiewicz  
*Title: Education Operations Coordinator*  
*Location: Tysons, VA*

**Expertise:** Cloud-Education Integration, Cornerstone Admin, Customer & Instructor Support, and eCourseware.

**Languages:** English

**Interesting Fact/Hobby:** I love hiking, backpacking, rock climbing, and all board sports.
MEET “THE CHIEF TROUBLEMAKER”

i.e. the SVP of MicroStrategy Education

Responsible for keeping the team motivated, focused and ensuring his antics keep everyone employed and happy.

Name: Rohit Amba
Title: Senior Vice President, MicroStrategy Global Education
Location: Tysons, VA

Expertise: Giving customers what they need, what they want and ensuring a positive customer experience. Coaching and managing teams to instill collaboration, accountability, and a strong drive to excel.

Languages: English, Hindi

Interesting Fact/Hobby: After growing up in Kuwait, received a Mechanical Engineering degree from the University of Arizona. In his spare time, he loves to watch the NFL (a big fan of the New England Patriots, Tom Brady & Bill Belichick), and take his two German Shepherds for walks.

Name: Lucy Palys
Title: Education Operations Coordinator
Location: Warsaw, Poland

Name: Sonia Chowdhury
Title: Education Operations Coordinator
Location: Tysons, VA


Languages: Bengali, English, Hindi/Urdu, Latin, Punjabi

Interesting Fact/Hobby: Nature and wildlife photography.

Name: Hyon-A Wyss
Title: Education Operations Coordinator
Location: Tysons, VA

Expertise: My MicroStrategy career began a year ago in Sales Operations as an analyst providing support between the field and corporate headquarters. I graduated from American University with a B.A. in International Relations in 2014. After graduation, I went on to work for a non-profit as a Program Director and as an Operations Consultant for an international organization. I am proficient in three languages.

Languages: English, French, Korean

Interesting Fact/Hobby: Painting, photography, arcade games, and road trips with the windows rolled down. I love playing basketball—it is something I could do for hours, alone or not.
For more information please contact your Account Executive about Enterprise training for your organization or email education@microstrategy.com and/or call 1-877-232-7168