

**Comprehensive Tableau**

**Course Number:** TAB-103
**Duration:** 4 days

**Overview**

Accelebrate’s Comprehensive Tableau training course teaches attendees the basic and advanced features of Tableau and how to use Tableau Desktop to quickly and comprehensively analyze and present data. Participants learn analytical techniques, best practices, and how to create dashboards that yield meaningful insights. Students then take their Tableau skills to the next level with advanced calculations, enhanced dashboard interactivity, and advanced analytics.

**Prerequisites**

No prior experience is presumed.

**Materials**

All Tableau training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* Tableau Desktop
* Microsoft Excel 2016 or later
* Internet access
* Related data and lab files that Accelebrate would provide

**Objectives**

* Apply the fundamentals of the tool
* Use all the basic functionality to visualize their data
* Connect to various data sources
* Build a variety of basic charts
* Combine insights into a useable dashboard
* Share and publish visualizations
* Create complex calculations and dynamic parameters
* Build a dashboard with powerful interactivity
* Produce complex chart types
* Apply advanced formatting and data visualization best practices
* Slice and dice your data to mine for critical insights

**Outline**

* Introduction
* Simple Data Connections and the Data Connection Interface
* Understanding the Main Tableau Interface
* Building Simple Visualizations
* Saving Options
* Understanding and Utilizing “Show Me”
* Dimensions vs. Measures and How They Affect a Viz
	+ What if We Wanted to Convert a Measure to a Dimension? How Would the Viz Change?
* Continuous vs. Discrete Variables
* Basic Dates
	+ Setting the Fiscal Year
* Basic Aggregations
* Hierarchies
* Sorting
* Grouping
* Formatting
	+ Color
	+ Size
	+ Labels
	+ Detail
	+ Formatting Individual Elements vs. the Entire Sheet vs. the Entire Workbook
* Building Your First Dashboard
* Labeling, Annotations, Tooltips and Data Highlighting
	+ Axis Labels
	+ Annotations
	+ Tooltips
* Using the Data Highlighter
* Quick Filters
* Publishing and Sharing
* Connecting to Different Databases and Data Formats
* Live vs. Extract Connections – The Basics
* Reshaping and Formatting Data for Tableau
* Managing Multiple Data Connections in a Single Workbook
* Cross Database Filters
* Relationships in Tableau
	+ Physical vs Logical layer overview
* Cross Database Joins & Data Blending
	+ What about Data from 2 Different Sources?
	+ What’s the Difference Between Relationship, Joins, Cross-Database Joins, and Blending?
	+ How Do I Create a Cross-Database Join?
	+ When Would I Use a Cross-Database Join vs. Data Blending?
	+ How Do I Blend Data?
* Understanding the Navigation Menu
* Showing Trends or Change Over Time
	+ Trends
	+ Rate of Change and Moving Average
* Part to Whole and Ranking Analysis
	+ The Standard Bar Chart
	+ The Stacked Bar Chart
	+ The Side-by-Side Bar
	+ Pie Charts
	+ Percent of Total and Running Sum
	+ Using the Index and Ranking Calculated Fields
* Creating Dual Axis Charts and Combo Charts
* Using Measure Names and Measure Values to Build a Data Table
	+ Totals and Subtotals
* Using Maps and Spatial Analysis
	+ Map Zooming
* Showing Relationships between Numbers
	+ Scatter Plots
	+ Trend Lines and Statistical Features
	+ Reference Lines
* Distributions
	+ Heatmaps and Highlight Tables
	+ Histograms
* Calculated Fields
* Aggregate Calculations & Ratios
* Logical Calculations
	+ If/Then
	+ IfNull
	+ IsNull
	+ ZN
* Date Calculations
	+ DateAdd
	+ DateDiff
	+ Today()
* Parameters
	+ Pre-defined Lists for Faster Filtering
	+ Top N Filter
	+ Reference Line Parameter
	+ Swapping Dimensions or Measures in a View
* Using Actions to Create Interactive Dashboards
	+ Filter Actions
	+ Highlight Actions
	+ URL Actions
* Combining Parameters and Actions: On Demand Charts
* Advanced Chart Types (green is what they need)
	+ Bar in Bar Chart
	+ Bulletgraphs
	+ Sparklines
	+ Slope Charts
		- Building a Slope Chart with a Continuous Axis
		- Building a Slope Chart with a Discrete Axis (i.e. Rankings)
	+ Pie Charts on Maps
	+ Control Charts
	+ Pareto Charts
* Advanced Formatting & Dashboard Best Practices
	+ Layout Containers
	+ Floating Elements
	+ When to Use Which
	+ Effective Dashboard Layouts
	+ Layout Best Practices
		- Titles and Labeling
		- Color Choices
		- Do
		- Don’t
	+ Guided Analytics
* Advanced Tooltips
	+ Text with formatting and dynamic data woven in
	+ Viz in tooltip
* Custom Shapes & Custom Color Palettes
* Advanced Segmentation
	+ Dynamic Sets
	+ Top N Sets
	+ Conditional Sets
	+ Combined Sets
	+ Set Actions
	+ Clustering
* Advanced Analytics
	+ Reference Bands and Reference Distributions Explained
		- Reference bands
		- Reference Distributions
		- 60, 80% of Total, Percentiles;
		- Quantiles
		- Standard Deviation
	+ Box Plots
	+ Forecasting
* Storypoints
* To Publish a Workbook to Tableau Server
* Conclusion