Teradata Education Course Catalog

Fall 2016

Teradata Education - Americas

TERADATA.

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Teradata Education

Strengthen your skills, your career – and your value with world class training

Teradata® Education designs, develops and delivers education that builds skills and capabilities to enable your company to maximize and expand its Teradata and Teradata Aster investment. Our cost-effective training brings you our highly experienced instructors and a world-class collection of online content that:

- Builds the know-how of technical staff to keep the system running smoothly and efficiently
- Teaches developers how to quickly and effectively implement applications that meet the needs of the business
- Helps business users discover ways to unlock the power of data, increasing your organization's ROI

About This Catalog

We've included our most popular course offerings in this catalog – please visit **www.Teradata.com/TEN** for a complete listing of all courses available.

Blended Learning Approach

Teradata offers a variety of formats to suit your needs. The combination of web technology through the Teradata Education Network, along with hands-on instructor-led training, gives each user level a wide range of opportunities to gain knowledge and expand skills. Our flexible education options build upon and complement one another for a cost-effective, robust offering. Covering a broad range of subjects, our training programs present the essential knowledge to achieve swift and smooth information technology implementation at every organizational level.

Scheduled Classes

Public, instructor-led training (ILT) classes for the Teradata Database are delivered in Virtual Instructor-led (VILT) format. No travel is required. Visit **www.Teradata.com/TEN/catalogsandschedules** for a listing of upcoming classes.

- Class hours are 9:30 am–5:30 pm Eastern Time (USA)

On-Site Classroom Training

Any instructor-led class may be taught at your location, and we can customize your training event by combining selected topics from our standard course offerings for technical and business users.

Education Offerings for Technical and Business Users

- Role-based training paths

The Teradata Education Network

- Teradata's premier online learning portal
- Self-paced learning content via webcasts and web-based courses

Teradata Education Consultants

- Teradata Education Consultants design customized training plans for you and your staff
- Call 937-242-4460 or contact your local Teradata representative

Satisfaction Guaranteed

If you are not completely satisfied with any instructor-led course, you may retake the class at no additional charge or request a tuition refund.

Pricing

Pricing in this catalog is effective from July 1, 2016 through December 31, 2016.

Benefits of Teradata Education

Flexible Delivery Options

- Teradata offers a variety of training options—self-paced, classroom, and virtual instructor-led

Expert Assessment of Training Requirements Based on Job Roles

- Teradata Education Consultants work with your organization to design a training program based on your specific needs

Decreased Ramp-Up Time

- Training enables you to come up to speed on the new technology quickly and efficiently

The Latest and The Greatest

- Training is available on new software versions, features and products

Quality You Can Count On

- Teradata is the only authorized provider of Teradata training – we offer a 100% satisfaction guarantee

Registration

Enrollment

The Teradata Education Support Center is open weekdays from 8:00 am to 5:00 pm Eastern Time (USA). We accept enrollments via fax, telephone, email, and our web site.

Phone: 800-845-2273 or 937-242-4460
Fax: 866-926-4233
Enrollment Email: TEN.Support@Teradata.com
Online: **www.Teradata.com/TEN**
For fax, email, and online registrations, we will confirm your reservation and provide class location and details.

Enrollment Information

Please be prepared to provide the following information so your enrollment can be processed quickly and accurately:

- Student Information (name, mailing address, telephone number, email address, job role)
- Supervisor's Name
- Billing Instructions
- Purchase Order (if required by your company)

Teradata's Accounts Receivable Address

Teradata Operations
10000 Innovation Drive
Dayton, OH 45342

Cancellations

Enrollments in public classes must be canceled at least 14 calendar days prior to the start of the class, or full tuition will be charged.

Substitutions

Student substitutions may be made at any time without penalty.

NEW: Expanded Teradata Aster Self-paced Training Curriculum

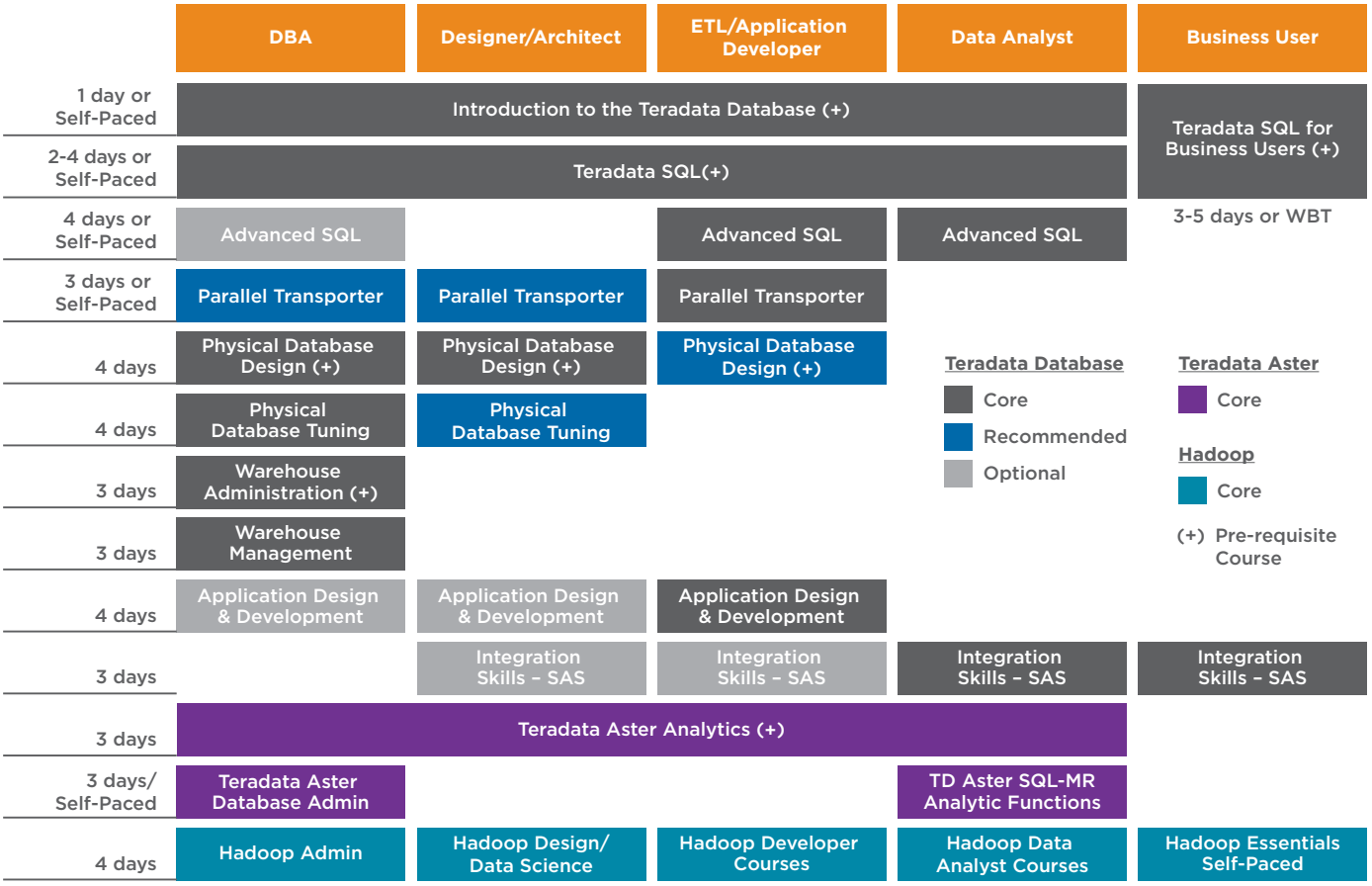
Prepare for your Aster Basics certification exam (available this fall) with these newly added courses:

- Introduction to Teradata Aster Analytics (page 18)
- Introduction to Teradata Aster Database Administration (page 18)

Teradata Education Plan

Customized, role-specific learning plans make it easy to decide

Select the Job Role/Function(s) which most closely match your primary job role, and identify the recommended courses to be included in your learning plan by reading down the appropriate column(s).



Discuss the course options with your Teradata Education Consultant to choose the best course(s) based on your Teradata platform, operating system, technical experience and learning preference.

Teradata Education Network

Expand your Teradata knowledge at your own pace, on your own schedule

Teradata Education Network (TEN) is a world-class online learning portal that allows you to harness the power of the internet, so you can expand your Teradata and Teradata Aster knowledge at your own pace – anytime, anywhere. View and access the most recent and most popular training courses; register online for web-based training, webcasts, and public classes (classroom and virtual instructor-led) in one comprehensive website.

Self-Paced Online Training

Whether you are new to Teradata and/or Teradata Aster or you are an advanced user, we have the online training needed for every skill level.

Web-Based Training Courses

Web-based courses are formal, self-paced training delivered via TEN. Many of our popular instructor-led courses are also offered in web-based formats, allowing you to save on travel costs and maximize your time.

Webcasts

Attend class from the comfort of your own desk! Webcasts are structured, usually one- to two-hour presentations delivered via TEN.

- **Live Webcasts** – Stay up to date on the latest topics with live webcasts featuring our newest, most popular presentations brought to you by seasoned Teradata subject matter experts. You'll have the opportunity to ask questions and discuss the content in real-time.

- **Recorded Webcasts** – Teradata also offers more than 175 recorded webcasts on a wide variety of technical and business subjects. Recorded webcasts may be accessed via TEN 24 hours a day, 7 days a week.

Learning Library

A collection of learning materials that includes white papers, Orange Books (Highly Technical Papers) and articles on Teradata topics.

Subscriptions

TEN subscriptions provide unlimited, online access to our web-based training courses and webcasts. Five subscription levels are available to meet your ongoing technical and business user training needs. Teradata Education Consultants will work with your organization to determine the right subscription level(s) required to meet your training objectives. Expand your Teradata knowledge and fully utilize your Teradata system with a TEN subscription.

The Right Partner for You

Teradata Education looks forward to bringing you the most advanced and exciting online education experience. To learn how to put the next generation of Teradata education to use, contact your Teradata representative or visit **www.Teradata.com/TEN**.

Visit **www.Teradata.com/TEN/Virtual-Tours** to sample a Recorded Webcast.

Teradata Education Network Subscriptions

FEATURES	BENEFITS
TERADATA EDUCATION NETWORK — **WEBCASTS $995***	
Live Webcasts	Live, online interactive courses featuring technical instruction, overviews, tips, and more—approximately two scheduled per month
Recorded Webcasts	A library of previously recorded live webcast presentations—more than 175 available
Learning Library	A collection of white papers, Orange Books (Highly Technical Papers) and articles from top subject matter experts
TERADATA EDUCATION NETWORK — **UNLIMITED $3,500***	
Live Webcasts	Live, online, interactive courses featuring technical instruction, overviews, tips, and more—approximately two scheduled per month
Recorded Webcasts	A library of previously recorded live webcast presentations—more than 175 available
Learning Library	A collection of white papers, Orange Books (Highly Technical Papers) and articles from top subject matter experts
Web-based Training	More than 30 structured, self-paced, web-based training courses, many with hands-on labs
TERADATA EDUCATION NETWORK — **BUSINESS $425***	
Recorded Webcasts	More than 20 webcast presentations specially designed for business users
TERADATA EDUCATION NETWORK — **BUSINESS UNLIMITED $1,495***	
Recorded Webcasts	More than 20 webcast presentations specially designed for business users
Web-based Training	Two structured, self-paced, web-based training courses: Teradata Fundamentals for Business Users and Teradata SQL for Business Users
TERADATA EDUCATION NETWORK — **TERADATA ASTER $795***	
Recorded Webcasts	Select webcast presentations specially designed for Teradata Aster Database users
Web-based Training	Includes access to select Teradata Aster self-paced courses

*Pricing shown applies to individual, annual subscriptions. Volume discounts are available.

*Note: price for Teradata Aster subscription is now $795 as of July 2016.

TERADATA

Recorded Webcasts

The newest, most popular webcasts available on Teradata Education Network

Visit **www.Teradata.com/TEN** for a current listing of all available courses or to view webcasts by topic. All recorded webcasts are priced at $195 per person.

	TERADATA COURSES	PRESENTERS	COURSE #
	Achieving Sentient (Webcast)	Oliver Ratzesberger	54952
	Advanced Temporal (Webcast)	Bhashyam Ramesh	54629
	Analytics & The Internet Of Things (Webcast)	Bill Franks	54352
NEW	Architecture of Presto, an Open Source SQL Engine (Webcast)	Kamil Bajda-Pawlikowski	54669
	Aster-R: Become an R Power User by Harnessing the Muscles of Aster (Webcast)	Diego Klabjan	54980
NEW	Automating Disaster Recovery Synchronization using Unity Data Mover (Webcast)	Kevin Black	54672
	Big Blocks: Usability Tips & Tradeoffs (Webcast)	Carrie Ballinger	52691
	Big Data Exploitation with a Unified Data Architecture (Webcast)	Stephen Brobst	54971
	Big Text: Gaining Value from Unstructured Data with Aster Text Analytics (Webcast)	Mark Turner	52911
	Chief Data Officers; What's the BIG Deal? (Webcast)	Charles Griffith	54977
	Controlling the Mix: What's New in Teradata Active Systems Management for TD15.0 (Webcast)	Doug Brown, Brian Mitchell	52629
	Data Collection for a Solid Performance Management Foundation (Webcast)	Dan Fritz	52524
	Data Integration and Optimization for Deploying a Unified Data Architecture (Webcast)	Stephen Brobst	54972
NEW	Data Modeling on NoSQL (Webcast)	Bryce Cottam	54671
	DBQL - the Ultimate Query Tracker - Are You Up-to-Date? (Webcast)	Barb Christjohn, Steven Tagai	52912
	Dealing with Natural Data Skew (Webcast)	Steve Molini, Kotesh Mukkamala	48984
	Defense in Depth - Best Practices for Securing a Teradata Data Warehouse (Webcast)	Jim Browning	36675
	De-mystifying LDAP and SSO - Teradata Database External Authentication (Webcast)	Jim Browning	45702
	Enabling SAS, SPSS, R, Tableau Desktop Analytics with Aster for Big Data (Webcast)	Kevin Pratt	53335
	Explaining the Aster Explain (Webcast)	Jarrod Johnson	54309
	Explaining the EXPLAIN for Business Users (Webcast)	Alison Torres	38085
	Hadoop and the Data Warehouse: How they Work Together (Webcast)	Stephen Brobst	54975
	Hands-On with Teradata QueryGrid: Teradata - Aster (Webcast)	Andy Sanderson	54756
	Hands-On with Teradata QueryGrid: Teradata-to-Hadoop (Webcast)	Andy Sanderson	54300
	Hands-On with Teradata QueryGrid: Teradata-to-Oracle (Webcast)	Andy Sanderson	54628
	Hands-On with Teradata QueryGrid: Teradata-to-Teradata (Webcast)	Andy Sanderson	54299
	High Performance Multi-System Analytics using Teradata QueryGrid (Webcast)	Andy Sanderson	53556
	How to Build a High Impact Data-Driven Culture (Webcast)	Ron Bodkin	54978
UPDATED	Implementing Non-Tactical Queries in a Mixed Workload Environment (Webcast)	Jim Petruzelli	53293
UPDATED	Implementing Tactical Queries in a Mixed Workload Environment (Webcast)	Jim Petruzelli	49784
	Implementing Temporal on Teradata (Webcast)	Steve Molini	53912
	Inside A Teradata Node (Webcast)	Alison Torres	45262
NEW	Integrated Analytics is a Different World (Webcast)	Todd Walter, Tom Fastner	54670
	Introducing Aster Express (Webcast)	John Thuma	53731
NEW	Introduction to Data Lakes by Think Big	Rick Stellwagen	54998
NEW	Like, Pin or Tweet It: Get More Value Out of Social Media Data with Aster (Webcast)	Liza Duffy	54798
	Managing Technical and Organizational Change, the Drive Towards Data Driven (Webcast)	John Timmerman	54974
UPDATED	Migrating Oracle Applications and Databases to the Teradata Data Warehouse (Webcast)	Ajay Chaubal	23280
UPDATED	Migrating your Oracle Database to a Teradata Data Warehouse (Webcast)	Dawn McCormick	23279
	Migrating your Teradata Active System Management Settings to SLES 11 (Webcast)	Doug Brown, Brian Mitchell	54648
	Oracle to Teradata 101 (Webcast)	Dawn McCormick	22381
	Panel Discussion: Big Bets on Big Data - Who, Where, What? (Webcast)	Oliver Ratzesberger	54976
	Priority Scheduler in SLES 11 for Teradata Database 15.0 (Webcast)	Carrie Ballinger	53751
	R Solutions Across the Unified Data Architecture (Webcast)	Bill Franks, Tim Miller, Arlene Zaima	53796
NEW	Radically Simplify Big Data Streaming	Allen Hoem	54797
	Rise of the Disruptive Data Warehouse (Webcast)	Rob Armstrong	53692
UPDATED	Simplify User Management using Roles and Profiles (Webcast)	Larry Carter	33452
NEW	Six Habitual Architecture Mistakes and How to Avoid Them	Eddie Sayer	54690
	System Performance Monitoring (Webcast)	Dan Fritz	54351
	Tables without a Primary Index - How does it work? (Webcast)	Larry Carter	45842
	Teradata Application Performance Tuning: Tips and Techniques (Webcast)	Dan Fritz	52894
	Teradata Aster App Center - When to use Which Visualization (Webcast)	John Thuma	54650
	Teradata Data Lab (15.10) Overview (Webcast)	Gary Ryback	53411
	Teradata Database 15 Overview (Webcast)	Rich Charucki	51524
	Teradata Database 15.10 Overview (Webcast)	Richard Charucki	54172
	Teradata Database Architecture Overview (Webcast)	Todd Walter	50480
	Teradata Enterprise Access for Hadoop (Webcast)	Ariff Kassam	52581
	Teradata Parallel Transporter Best Practices (Webcast)	Steven Feinholz	54078
	Teradata Partitioning (Webcast)	Paul Sinclair	53716
	Teradata Secure Zones: Implementation Basics (Webcast)	Youko Watari	54294
	Teradata Star-Schema Designs (Webcast)	Steve Molini	26536
	Teradata Studio Express (Webcast)	Darrik Sogabe, Francine Grimmer	50591
	Teradata Studio: Teradata's Administration Toolkit (Webcast)	Shrity Verma, Francine Grimmer	50506
	Teradata Terminology Deciphered (Webcast)	Mark Jauss	21408
UPDATED	Teradata Unity Director and Unity Loader Architecture (Webcast)	Paul LaPointe	51059
NEW	Teradata Viewpoint Introduction and Update (Webcast)	Gary Ryback	55067
	Teradata Workload Management Release 15.0 /15.10 for SLES 11 Technical Overview (Webcast)	Youko Watari	54856
	Teradata, Memory, and Storage (Webcast)	Larry Carter	45883
	The ABC's of Teradata Data Lab (Webcast)	Gary Ryback	54973
	The Basics of Using JSON Data Types (Webcast)	David Micheletto	52483
	The Many Uses of the Teradata Querybanding Feature (Webcast)	Debbie Galeazzi, Mike Coutts	43042
	The nPath forward - Using Aster nPath to Uncover Customer Patterns (Webcast)	Mark Ott	51337
	The Truth About Real-Time Architectures (Webcast)	William Kornfeld	54979
	Unity Data Mover 15.10 Overview (Webcast)	Cliff Lindroth	54367
	Unity Ecosystem Manager – Advanced Monitoring and Alerting for your UDA (Webcast)	Mark Hasenstab, Paulraj Thomas	51540
	What Do I Do First? Aster Text Analytics Step by Step (Webcast)	Mark I. Turner	54147
	Whats New in Viewpoint 15.10 (Webcast)	Shrity Verma	54208
	When to Use Hadoop, When to use the Data Warehouse (Webcast)	Dan Graham	50373
	When to Use Which Type of Chart in Aster Lens (Webcast)	Jarrod Johnson	53433
	Workload Management Capacity on Demand and other SLES11 Hard Limits (Webcast)	Carrie Ballinger, Brian Mitchell	52773
	Workload Management with SLES 11 – Tips and Techniques (Webcast)	Dan Fritz	53853

LENGTH (HOURS)	Database Administrator	Designer/Architect	Application Developer	Data Analyst	Business User
0.75	•	•	•	•	•
1.5		•	•		•
1	•	•			
1.5				•	•
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0.5	•			•	
1.25	•	•	•		
1.5	•				

LIVE WEBCAST SCHEDULE*

July 14
Teradata Certification, What's New and How to Prepare
Presenters: Susan Baskin and Matt Scicchitano – Teradata
Course # 55111 Price: $215

July 28
Why not Columnar with a Primary Index? What's a PA?
Presenters: Paul Sinclair – Teradata
Course # 55241 Price: $215

August 3
A Structured Method for Tuning Teradata SQL
Presenters: Arnie VanWyk – Teradata
Course # 45703 Price: $215

August 25
Analytics in the UDA - 101
Presenters: Paul Segal – Teradata
Course # 55170 Price: $215

September 8
How to Prevent Hadoop from being Hacked
Presenters: Chris McVey – Teradata
Course # 55400 Price: $215

September 22
Teradata Database – Being Faster, Being Smarter
Presenters: Rob Armstrong – Teradata
Course # 55334 Price: $215

October 6
Teradata Database 16.0 Overview
Presenters: Tom Fastner and Phil Benton – Teradata
Course # 55418 Price: $215

October 12
Performance Diagnostic Methodology
Presenters: Arnie VanWyk – Teradata
Course # 51945 Price: $215

November 10
Analytic Architecture Modernization
Presenters: Eddie Sayer – Teradata
Course # 55426 Price: $215

*Schedule is subject to change. Visit **www.Teradata.com/TEN** for the most current course information.

TERADATA.

Teradata Fundamentals for Business Users

WBT 48383	8 Hours*	$398

Audience – Business Users
Prerequisites – None

Course Overview

Specially designed for the business user, this course provides a broad overview of the features, functions and benefits of the Teradata database. The student will also gain a basic understanding of Teradata terminology and acronyms.

Course Objectives

After successfully completing this course, you will be able to:

- Understand various data warehouse architectures and where Teradata fits in
- Describe basic relational database theory
- Know the principal components of the Teradata database and their function
- Understand Teradata objects and their hierarchy, data distribution, and data access mechanics
- Be familiar with the features that provide fault tolerance performance, scalability, and security

Introduction to the Teradata Database

Demo Available

WBT 26438	8 Hours*	$398

Audience – **Core Curriculum:** Database Administrators, Designers/Architects, Application Developers, Data Analysts
TCPP Exam Preparation – TE0-141
Prerequisites – None

Course Overview

Intended for technical audiences, this course provides a detailed overview of the features, functions and benefits of the Teradata database. Among the topics taught are data distribution, access, storage, and data protection methods. The suite of load, access, and management utilities and tools are also covered, as well as basic Teradata terminology and acronyms.

Course Objectives

After successfully completing this course, you will be able to:

- Describe the purpose and function of the Teradata Database
- Understand relational table structures using Primary Keys and Foreign Keys
- List the principal components of the Teradata Database and describe their functions
- Understand the hierarchy of database objects and space management
- Describe the function of the Primary Index and the Secondary Index
- Know how data distribution and data access mechanics work in the Teradata Database
- Describe the Teradata Database features that provide fault tolerance
- Understand the use and application of the Teradata Tools and Utilities

Teradata 15.00 Differences

WBT 51841	11 Hours*	$349

Audience – Those familiar with Teradata 14.10
Prerequisites – Working knowledge of Teradata 14.10

Course Overview

This course provides details on the new features and functions of Teradata 15.00. For each new feature, the course provides a description, business value, and when and how to use it. Configuration is also addressed when applicable.

Course Objectives

After successfully completing this course, you will be able to understand and apply the new features and functions of Teradata 15.00:

- JSON Integration
- Big Data & Analytics
- Ecosystem
- Quality & Supportability
- Industry Compatibility

*Time of completion varies by individual.

Teradata 15.10 Differences

WBT 51843	10-12 Hours*	$349

Audience – Those familiar with Teradata 15.00
Prerequisites – Working knowledge of Teradata 15.00

Course Overview

This course provides details on the new features and functions of Teradata 15.10. For each new feature, the course provides a description, business value, and when and how to use it. Configuration and support issues are also addressed when applicable.

Course Objectives

After successfully completing this course, you will be able to understand and apply the new features and functions of Teradata 15.10:

- Analytic Processing & Performance
- Large Memory Leverage
- Concurrency
- Security
- Database and Performance
- Supportability
- Administration

Teradata Data Stream Architecture (DSA)

WBT 53054	3-4 Hours*	$249

Audience – Database Administrators and BAR operators
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438))

Course Overview

This self-paced course covers backup and restore (BAR) and Data Stream Architecture (DSA) architecture/concepts, and provides an overview of the hardware, software, and services components that comprise Teradata BAR solutions.

This knowledge is a prerequisite to meeting with the Teradata implementer for the hands on BAR Training at the client's site, and is also helpful for onboarding new personnel.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the Teradata DSA solution/architecture
  - DSA functions
  - DSA components
  - How the components fit together and what they do
- Explain basic DSA operations
- Know the BAR variables that affect DSA performance and operations

*Time of completion varies by individual.

Teradata SQL

Demo Available

WBT 54458	29 Hours*	$995

Audience – Core Curriculum: Database Administrators, Designers/Architects, Application Developers, Data Analysts
TCPP Exam Preparation – TE0-142
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438))

Course Overview

This course offers practical, hands-on experience with retrieving and manipulating data with Teradata Structured Query Language (SQL) using both ANSI standard conventions and Teradata extensions to the language.

Course Objectives

After successfully completing this course, you will be able to:

- Understand basic relational concepts and their implementation using SQL
- Retrieve data using the SELECT statement
- Use logical and arithmetic expressions
- Choose the appropriate Teradata Data Type for column definitions
- Use the HELP and SHOW facilities to obtain information from the Data Dictionary about data structures associated with Teradata databases, users, tables, views, macros, and indexes
- Use Teradata's DATE data type for date and time-oriented reporting
- Use BTEQ for simple SQL request processing
- Create/modify tables and views using Column Attributes and Check Constraints
- Create secondary indexes, and create/execute macros using run time parameters
- Format query output, and produce reports using joins and subqueries
- Write SQL with INNER, OUTER, LEFT, RIGHT, and CROSS joins
- Use set operators like UNION, INTERSECT, and EXCEPT
- Use WITH and WITH ... BY to produce reports with totals and subtotals
- Produce reports using table Aggregation, and String Manipulation
- Maintain data using INSERT, UPDATE, and DELETE
- Use the CASE statement to tag output and to perform row-level set assignment
- Use Teradata built-in functions, such as RANK and SAMPLE

Teradata SQL Extensions

WBT 50584	10 Hours*	$398

Audience – Database Administrators, Designers/Architects, Application Developers, and Data Analysts
Prerequisites – Prior experience with SQL is mandatory

Course Overview

This course offers practical, hands-on experience with retrieving and manipulating data with Teradata Structured Query Language (SQL) using Teradata extensions to the ANSI standard language. Ideally suited for students who have working knowledge of SQL using other relational database(s), the material highlights the additional capabilities Teradata has added to the language.

Course Objectives

After successfully completing this course, you will be able to:

- Understand Teradata SQL naming conventions
- Write queries using Teradata SQL functions and operators
- Code inner and outer joins in Teradata SQL
- Know the Teradata-specific syntax structures
- Be able to use advanced SQL constructs and formatting options in Teradata
- Understand the methods for creating new tables from existing structure

*Time of completion varies by individual.

Teradata SQL for Business Users

WBT 50541	24 Hours*	$1,192

Audience – **Core Curriculum:** Business Users
Prerequisites – The following software must be installed on your computer in order for you to be able to complete this course:

- Teradata ODBC driver (available from Teradata.com), Teradata SQL Assistant (licensed product, must have been purchased by your company)

Course Overview

This course was designed for data analysts and business users of the Teradata system. It provides an overview of the Teradata architecture as well as the features and benefits of the product. It covers data distribution, access, storage, and Teradata terminology and how to use the Teradata utility SQL Assistant to submit Structured Query Language (SQL) statements. This course offers practical, hands-on experience with retrieving and manipulating data with Teradata SQL using both ANSI standard conventions and the Teradata extensions to the language.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the architecture and components of the Teradata Database
- Know how the Teradata database uses the Primary and Secondary Indexes
- Write queries in the SQL programming language that access single and multiple tables
- Use SQL Assistant for submitting queries to the Teradata Database
- Be able to convert and format data for reporting purposes, including exports into Excel
- Know how to produce totals and subtotals in reports using aggregation operators
- Understand he use of various join strategies and subqueries to qualify the data to be selected from the database
- Create queries which perform rankings of data and extract data samples from large tables

Teradata Advanced SQL

WBT 54390	32 Hours*	$1,192

Audience – **Core Curriculum:** Application Developers, Data Analysts, **Optional:** Database Administrators, Architects/Designers
TCPP Exam Preparation – TE0-142
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This web-based training course offers advanced features and techniques used for retrieving and manipulating data with Teradata Structured Query Language (SQL) using both ANSI standard conventions and Teradata extensions to the language.

Course Objectives

After successfully completing this course, you will be able to:

- Create and use volatile and global temporary tables
- Create tables with appropriate constraints for referential integrity and the controlling of data insertion
- Create new tables from existing tables, copying data and table attributes from the source table
- Use the Teradata data types for date and time-oriented queries
- Use the MERGE INTO command for ANSI Upsert processing, and apply ANSI features such as EXISTS statement, correlated subqueries, and derived tables
- Create recursive queries using recursive tables and views
- Create analytical queries using advanced ranking and extended grouping functions
- Create OLAP queries using advanced ranking functions
- Use Ordered Analytic Functions for Group, Sum, Cumulative and Remaining Window Aggregations
- Use RANDOM and SAMPLE functions for generating or extracting samples of data
- Use Teradata extended grouping functions – ROLLUP, CUBE, GROUPING SETS
- Use the Teradata DATE, TIME, TIMESTAMP and TIME WITH ZONE data types for date and time-oriented queries
- Use INTERVAL data types to perform complex data arithmetic in time-oriented queries, and apply internationalized numeric and date/time formatting options

*Time of completion varies by individual.

Teradata SQL for Application Development

WBT 54173	39 Hours*	$1,192

Audience – **Core Curriculum:** Application Developers, **Optional:** Database Administrators, Designers/Architects
TCPP Exam Preparation – TE0-142, TE0-145, TE0-147
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), experience in application development and familiarity with a text editor

Course Overview

This course offers practical, hands-on experience with retrieving and manipulating data with Teradata Structured Query Language (SQL) using both ANSI standard conventions and Teradata extensions to the language. The focus of this course will be SQL as used for application design and development.

Course Objectives

After successfully completing this course, you will be able to:

- Distinguish among Referential Integrity, Soft Referential Integrity and Batch Referential Integrity
- Manipulate value comparisons with case-sensitive data
- Create and access Large Objects; deploy Array Data Types where appropriate
- Implement Period and Geospatial data types, as well as User Defined Types
- Create JSON documents within Teradata
- Implement normalized periods on tables, and create time-oriented queries
- Use the ANSI MERGE capability in place of Multiload for data loading
- Implement Error Tables for complex error handling
- Collect Statistics on one or on multiple columns
- Implement Column Compression and Columnar Partitioning
- Create and implement Aggregate Join and Hash Indexes
- Create and implement tables without a primary index (NoPI tables), and tables using a single-level or multi-level Partitioned Primary Index
- Build and implement performance improvements with NUSIs and Join Indexes
- Create and implement materialized views, such as Global Join Indexes and Sparse Indexes

Teradata SQL for Active Events

WBT 54174	37 Hours*	$1,192

Audience – Database Administrators, Designers/Architects, Application Developers
TCPP Exam Preparation – TE0-142, TE0-145, TE0-147
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), familiarity with a Unix, Linux or Windows environment and a text editor, programming language experience – Java program development will be helpful but not necessary

Course Overview

This course offers advanced features and techniques used for implementing and executing active events processing using Teradata Structured Query Language (SQL). Students will create, implement and use Teradata enablers such as stored procedures, queue tables, triggers, and user defined functions for the active event environment.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the interactions of events, messages and actions; role of Teradata in event detection and processing
- Create and implement a queue table to be used in an event processing application
- Create triggers and distinguish between the use of row and statement triggers
- Control firing sequence of multiple triggers using ORDER or TIMESTAMP
- Create cascading and recursive triggers and use the SET statement for BEFORE trigger processing
- Recognize the advantages of using stored procedures for conditional trigger logic
- Implement User Defined Functions, Table Functions, and Table Operators
- Create, compile and execute SQL stored procedures
- Define External Stored Procedures (XSPs) and identify their purpose and benefits
- Create Java XSPs with SQL and JDBC
- Create and install an XSP containing SQL requests while recognizing the benefits and restrictions of using SQL via the CLI interface in an XSP
- Use Large Objects (LOBs) in event processing

*Time of completion varies by individual.

Introduction to Temporal Tables

WBT 49905	4 Hours*	$249

Audience – Database Administrators, Designers/ Architects, and Application Developers
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This informative course provides hands-on exposure to the features, capabilities, and techniques for creating, propagating, and managing temporal data within the Teradata database.

Course Objectives

After successfully completing this course, you will be able to:

- Describe the architecture and components of the Teradata implementation of the temporal tables feature
- Articulate the purpose of creating applications with temporal tables and why customers will use them
- List and differentiate the different types of temporal tables
- List the available temporal qualifiers and the type of result they will produce
- Recognize the benefits and limitations of adding temporal data as an enhancement to traditional data tables

Teradata SQL for Temporal Tables

WBT 49904	29 Hours*	$1,192

Audience – Database Administrators, Designers/ Architects, Application Developers
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), Teradata Advanced SQL (Instructor-led (#25966) or WBT (#54390)), Teradata SQL for Application Development (Instructor-led (#28910) or WBT (#49673)), Teradata SQL for Active Events (WBT (#49674)), Introduction to Temporal Tables (WBT (#49905))

Course Overview

This course provides in-depth, hands-on exposure to the features, capabilities, and techniques for creating, propagating, and managing temporal data within the Teradata Database.

Course Objectives

After successfully completing this course, you will be able to:

- Create, modify, and implement the following Teradata objects: Valid Time Tables, Transaction Time Tables, Bi-Temporal Tables, and related objects such as Join Indexes, Triggers, Views on Temporal Tables
- Design SQL queries to capture time-dimensioned data providing answers to the questions, 'what did we know' and 'when did we know it'
- Implement appropriate temporal qualifiers to the standard SQL statements to maintain and retrieve temporal data
- Implement partitioned primary index tables using recommended temporal design schemes
- Create views, triggers, table constraints and join indexes for tables with temporal time dimensions
- Recognize the impact of temporal tables on other Teradata SQL commands such as MERGE, ABORT, HELP and SHOW

*Time of completion varies by individual.

NEW

Teradata Application Utilities

WBT 55069	24 Hours*	$995

Audience – **Core Curriculum:** Application Developers **Recommended:** Database Administrators **Optional:** Designers/Architects
TCPP Exam Preparation – TE0-144, TE0-145
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This practical course explores the concepts and use of BTEQ, FastLoad, MultiLoad, TPump and FastExport, including writing scripts for importing and exporting data in a Teradata environment. These utilities include performing SELECT, INSERT, UPDATE, DELETE and UPSERT operations in batch and real-time environments using the Teradata application utilities for maximum performance and efficiency. Extensive hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Identify and state the purpose, features and usage of each data LOAD utility (BTEQ, FastLoad, MultiLoad, and TPump)
- Identify and state the purpose, features and usage of each data UNLOAD utility (BTEQ and FastExport)
- Identify where the Application utilities should be installed and configured on a Teradata system
- Code batch scripts to IMPORT data into the Teradata Database and EXPORT data to the host from the Teradata Database using BTEQ
- Understand the features, benefits and usage of the Support Environment commands that are used with the MultiLoad, TPump, and FastExport utilities

UPDATED

Teradata Parallel Transporter

WBT 55048	24 Hours*	$995

Audience – **Core Curriculum:** Application Developers **Recommended:** Designers/Architects, **Optional:** Database Administrators
TCPP Exam Preparation – TE0-144, TE0-145
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This course explores and explains the features and functions of the Teradata Parallel Transporter (TPT) product. The Extract/Transform/Load (ETL) capabilities of TPT and its many special purpose "operators" are discussed in detail to support the writing of job scripts that are used to move data from one point to another. The benefits and flexibilities of a single scripting language to support all loading and unloading functions are demonstrated, incorporating examples of practical applications of TPT. Hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the role of TPT in loading/unloading a Teradata Database
- Recognize the different components that make up a TPT script, such as: DEFINE JOB, DEFINE OPERATOR, DEFINE SCHEMA, and APPLY
- Understand how to write TPT scripts with and without Simplicity
- Use and apply TPT Operators: Load, Export, Update, Stream, DataConnector, ODBC, and OS Command
- Execute the TPT Utility commands to manage the job submission and control environment
- Be familiar with advanced TPT features, including Directory Scan and parallel read

NEW

Teradata Unity Implementation Overview

WBT 55371	4 Hours*	$249

Audience – Database Administrators
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438))

Course Overview

This course provides a foundational understanding of the Unity products, either in preparation for implementing them or for understanding their role in the Teradata architecture. The products covered in this course are: Teradata Ecosystem Manager 15.10, Teradata Data Mover 15.11, and Teradata Unity (formerly Unity Director/Loader) 15.00. Throughout the course, examples and use cases are presented.

Course Objectives

After successfully completing this course, you will be able to:

- Describe the features and functions of the products used to implement Teradata Unity
- Understand the concepts, terminology, and processes needed to implement Unity products

*Time of completion varies by individual.

Introduction to Logical Data Modeling

WBT 23229	4 Hours*	$249

Audience – Database Administrators, Designers/ Architects, Application Developers
Prerequisites – None

Course Overview

This introductory course covers the basics of Logical Data Modeling (LDM). In this course, the student will learn what a LDM is and the theory and rules used in logical data. Also covered is the relationship of a logical data model to a physical data model. This course is intended for both a technical and non-technical audience with little or no experience with logical data models.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the major parts of a Logical Data Model and terminology, including Entities, Attributes, Relationships, and Assertions
- Describe the importance of creating a good logical data model
- Describe what normalization is and why it is done
- Read and interpret a simple Logical Data Model (LDM)

*Time of completion varies by individual.

UPDATED

Introduction to Big Data and Teradata Aster

WBT 53334	2-3 Hours*	$249

Audience – Database Administrator, Designer/Architect, Application Developer, Data Analyst, Business User
Prerequisites – None

Course Overview

Are you curious about all of the hype about big data and how to embrace/tackle it? In this course, you will learn about how big data is changing analytics and how Teradata Aster can easily meet the challenges of accessing big data in an efficient manner, enabling data scientists/analysts to unleash the power of all of their data for richer business insights.

This course provides an excellent overview of the big data landscape and Teradata Aster features.

Course Objectives

After successfully completing this course, you will be able to:

- Understand and be able to discuss how big data is presenting challenges to the current process of data analytics
- Be familiar with the components of the Teradata Aster database in a conceptual and architectural format
- Know the concepts of Teradata's Unified Data Architecture

NEW

Introduction to Teradata Aster Analytics

WBT 55211	6-8 Hours*	$398

Audience – Database Administrators, Designer/Architect, Data Analysts
Prerequisites – Introduction to Big Data and Teradata Aster WBT (#53334)

Course Overview

The purpose of this course is to technically acquaint the student with the Teradata Aster database. Key topics include database and schema data modeling, creating tables, data acquisition and preparation, data loading, Map Reduce (SQL-MR), and selected analysis functions. The course is concluded with data visualization using Teradata Aster AppCenter and an overview of Teradata Aster R. Learning is reinforced throughout the course with extensive examples and demos.

Course Objectives

After successfully completing this course, you will be able to:

- Create Aster databases and schemas to provide the system's organizational and management structure
- Create fact and dimension tables in the Aster database
- Create logically partitioned tables from either a fact or dimension table
- Load data into the Aster database using nCluster Loader, and customize nCluster Loader processing
- Explain the design and syntax of SQL-MR functions
- Compare and contrast Map (Row) and Reduce (Partition) functions
- Use data acquisition and preparation functions
- Describe the how eight popular analysis functions work
- Understand why data visualization is important to analytics
- Create and run visualization Apps with Teradata Aster AppCenter
- Know the difference between R and Aster R, and be able to run Aster R commands in RStudio

NEW

Introduction to Teradata Aster Database Administration

WBT 55353	4-5 Hours*	$249

Audience – Database Administrators
Prerequisites – Introduction to Big Data and Teradata Aster WBT (#53334)

Course Overview

This introductory course is intended for those who will be performing Teradata Aster database administration functions. Data Modeling in Aster is examined, followed by "how to" instructions for creating Teradata Aster data structures – databases, schemas, and tables. The course concludes with a detailed explanation of strategies for loading data into a Teradata Aster database.

Learning is reinforced throughout the course with extensive examples and demos.

Course Objectives

After successfully completing this course, you will be able to:

- List the best options for Teradata Aster data models
- Describe the differences in data model components between a Teradata Aster Database and a Teradata Database
- Create Teradata Aster Databases and Schemas
- Describe valid column data types and constraints
- Create Fact and Dimension tables in the Teradata Aster Database
- Create Logically Partitioned (LP) tables from either a Fact/Dimension table
- Load data into the Teradata Aster Database using nCluster Loader
- Customize nCluster Loader processing with flags
- Be aware of other tools that may be used to load data into the Teradata Aster Database

*Time of completion varies by individual.

Teradata Aster 6.0 Differences

WBT 53233	6 Hours*	$249

Audience – Database Administrator, Designer/Architect, Data Analyst
Prerequisites – None

Course Overview

This course covers the new features/functionality for Aster Database 6.0, Aster Client 6.0 and Aster Analytics 6.0.

Course Objectives

After successfully completing this course, you will be able to:

- Configure AFS and use it in PSTParserAFS and DistCP
- Explain Cross Validation and use it in Lars and LarsPredict-Know the concepts of Teradata's Unified Data Architecture
- Create queries using the following functions:
  - o GLM and GLMPredict
  - o Correlation and KNN
  - o Histograms and nTree
  - o Naïve Bayes and Decision Trees
- Discuss the new Security Features including:
  - o Teradata Wallet
  - o LDAP configuration

NEW

Teradata Aster 6.1/6.20 Differences

WBT 55404	5-7 Hours*	$249

Audience – Database Administrators, Designer/Architects, Data Analysts
Prerequisites – None

Course Overview

Are you curious about the new features that were released with the Teradata Aster 6.10 and 6.20 suites of products? Would you like to learn about Aster R? If the answer is yes, this course is intended for you! This course covers what's new in releases 6.10/6.20 as compared to release 6.0

Course Objectives

After successfully completing this course, you will be able to:

- Create Aster databases and schemas to provide the system's organizational and management structure
- Be familiar with the new Foreign Server feature, and how to use foreign server with Teradata QueryGrid connectors to load data to and from foreign servers (e.g., Hadoop).
- Use the new and improved Teradata Aster analytic functions
- Understand the differences between R and Aster R
- Know how to useTeradata Aster R key functions and visualization in Rstudio and Teradata Aster AppCenter
- Be able to install Teradata Aster R 6.20

NEW

Implementing Teradata QueryGrid: Teradata-to-Aster

WBT 55010	1-2 Hours*	$195

Audience – Database Administrators, Designer/Architects, Application Developers
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This course provides technical information on Teradata QueryGrid: Teradata-to-Aster Database 15.00.

Course Objectives

After successfully completing this course, you will be able to:

- Describe Teradata QueryGrid: Teradata-to-Aster
- Understand the use cases, requirements and business value
- Explain how to implement and configure the product
- Describe any potential trade-offs or limitations
- Use SQL to import data from, and export data to, a remote Aster system

NEW

Querying with QueryGrid - Teradata-to-Hadoop and Teradata-to-Teradata

WBT 55068	3-4 Hours*	$249

Audience – Database Administrators, Designer/Architects, Application Developers
Prerequisites – Knowledge of SQL

Course Overview

This self-paced course features instructional content and demos for key QueryGrid - Teradata-to-Hadoop and Teradata-to-Teradata functions. The course also includes Interactive activities that allow you to practice and assess what you've learned.

Course Objectives

After successfully completing this course, you will be able to:

- Use SQL to interact and query between target and source systems for Teradata-to-Hadoop and Teradata-to-Teradata
  - o Metadata
  - o Import and export data
  - o Data transfer
  - o Partition filtering
  - o Push-down processing
- Distinguish Teradata QueryGrid capabilities on Teradata Database 14.10 vs. Teradata Database 15.00
- Describe considerations for when to use Teradata QueryGrid vs. other methods/products

*Time of completion varies by individual.

Introduction to the Teradata Database

Lecture

ILT 25964	1 Day	On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators, Designers/Architects, Application Developers, Data Analysts
TCPP Exam Preparation – TE0-141
Prerequisites – None

Course Overview

This course provides a detailed overview of the features, functions and benefits of the Teradata database. Among the topics taught are data distribution, access, storage, and data protection methods. The suite of load, access, and management utilities and tools are also covered, as well as basic Teradata terminology and acronyms.

Course Objectives

After successfully completing this course, you will be able to:

- Describe the purpose and function of the Teradata Database
- Understand relational table structures using Primary Keys and Foreign Keys
- List the principal components of the Teradata Database and describe their functions
- Understand the hierarchy of database objects and space management
- Describe the function of the Primary Index and the Secondary Index
- Know how data distribution and data access mechanics work in the Teradata Database
- Describe the Teradata Database features that provide fault tolerance
- Understand the use and application of the Teradata Tools and Utilities

Teradata SQL

Lecture/Lab

ILT 25965	4 Days	On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators, Architects/Designers, Application Developers, Data Analysts
TCPP Exam Preparation – TE0-142
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438))

Course Overview

Designed for the student with little or no SQL expertise, this course focuses on retrieving and manipulating data with the Teradata Structured Query Language (SQL). Both ANSI standard conventions and Teradata extensions to the language are covered. Extensive hands-on labs help reinforce the concepts learned.

Course Objectives

After successfully completing this course, you will be able to:

- Work with Teradata Studio Express for submitting queries to the Teradata Database
- Write SELECT statements using SQL operators such as AND, OR, IN, NOT IN, BETWEEN and LIKE, POSITION, and SUBSTRING for data retrieval
- Understand and be able to work with Teradata data types
- Write queries to produce totals and subtotals in reports using aggregation operators
- Write SELECT statements using inner and outer joins
- Write SELECT statements using correlated and non-correlated sub-queries
- Write SQL to modify the database, using the UPDATE, INSERT, and DELETE statements
- Use analytic functions, including SAMPLE, RANDOM, and TOP N
- Work with views, macros, and derived tables

Getting Started With Teradata and SQL

Lecture/Lab

ILT 54588	4 Days	Public class $2,200/student On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators, Architects/Designers, Application Developers, Data Analysts
TCPP Exam Preparation – TE0-142
Prerequisites – None

Course Overview

Designed for the student with little or no Teradata and SQL expertise, this course provides an introduction to the Teradata Database, and instruction on retrieving and manipulating data with the Teradata Structured Query Language (SQL). Both ANSI standard conventions and Teradata extensions to the language are covered. Extensive hands-on labs help reinforce the concepts learned.

Course Objectives

After successfully completing this course, you will be able to:

- Describe the purpose and function of the Teradata Database
- Be familiar with the Teradata Database architecture and terminology
- Understand relational table structures using Primary Keys and Foreign Keys
- List the principal components of the Teradata Database and describe their functions
- Work with Teradata Studio (Express) for submitting queries to the Teradata Database
- Write SELECT statements using SQL operators such as AND, OR, IN, NOT IN, BETWEEN and LIKE, POSITION, and SUBSTRING for data retrieval
- Understand and be able to work with Teradata data types
- Write queries to produce totals and subtotals in reports using aggregation operators
- Write SELECT statements using inner and outer joins
- Write SELECT statements using correlated and non-correlated subqueries
- Write SQL to modify the database, using the UPDATE, INSERT, and DELETE statements
- Use analytic functions, including SAMPLE, RANDOM, and TOP N
- Work with views, macros, and derived tables

Teradata SQL Features Overview

Lecture/Lab

ILT 26352	2 Days	On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators, Architects/Designers, Application Developers, Data Analysts
TCPP Exam Preparation – Reference Material for TE0-142, TE0-14B, TE0-145, TE0-147
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438))

Course Overview

Designed for the student with little to moderate experience in the use of Structured Query Language (SQL) in an environment other than Teradata, this course introduces key SQL concepts and highlights the differences between ANSI SQL and Teradata SQL. Extensive hands-on labs help reinforce learning in this intensive two-day course.

Course Objectives

After successfully completing this course, you will be able to:

- Work with Teradata Studio Express for submitting queries to the Teradata Database
- Understand and be able to work with Teradata data types
- Write SELECT statements, using SQL operators such as AND, OR, IN, NOT IN, BETWEEN and LIKE, POSITION, and SUBSTRING for data retrieval
- Write SELECT statements using inner and outer joins
- Write SELECT statements using correlated and non-correlated sub-queries
- Write queries to produce totals and subtotals in reports using aggregation operators
- Write SQL to modify the database, using the UPDATE, INSERT, and DELETE statements
- Use analytic functions, including SAMPLE, RANDOM, and TOP N
- Work with views, macros, and derived tables

Teradata SQL Advanced Features Overview

Lecture/Lab

ILT 50245	2 Days	On-site class - call for quote

Audience – Database Administrators, Architects/Designers, Application Developers, Data Analysts
TCPP Exam Preparation – Reference Material for TE0-142, TE0-145, TE0-147
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)); extensive experience with ANSI SQL

Course Overview

Designed for the student who is experienced in the use of Structured Query Language (SQL) in an environment other than Teradata, this course reviews key SQL concepts and highlights the differences between ANSI SQL and Teradata SQL. Advanced features and techniques are highlighted. Hands-on labs help reinforce learning in this intensive two-day course.

Course Objectives

After successfully completing this course, you will be able to:

- Work with Teradata Studio Express for submitting queries to the Teradata Database
- Understand and be able to use Teradata data types
- Write SELECT statements using SQL operators such as AND, OR, IN, NOT IN, BETWEEN, LIKE, POSITION, and SUBSTRING for data retrieval
- Work with macros, permanent, and derived tables
- Write SELECT statements using inner and outer joins
- Write SELECT statements using correlated and non-correlated sub-queries
- Write queries to produce totals and subtotals in reports using aggregation operators
- Use analytic functions, including SAMPLE, RANDOM, TOP N, RANK, and QUANTILE
- Work with advanced features, such as recursive sub-queries, scalar sub-queries, and interval data types

Teradata SQL for Business Users

Lecture/Lab

ILT 36838	5 Days	On-site class - call for quote

Audience – **Core Curriculum:** Business Users
Prerequisites – None

Course Overview

Designed for the Business User of the Teradata Database with little or no previous SQL experience, this course provides an overview of the Teradata architecture as well as the features and benefits. Data distribution, access, storage, and Teradata terminology are covered, followed by a thorough study of Teradata Structured Query Language (SQL). The student will get lots of practical, hands-on experience with retrieving and manipulating data using both ANSI standard conventions and Teradata extensions to the language.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the Teradata Database and relational theory at a high level
- Know the architecture and components of the Teradata Database and the benefits of using detail data
- Use Teradata Studio to submit queries to the Teradata Database
- Use Teradata's HELP facilities to retrieve information about your company's data structures
- Write queries in the SQL programming language that access single and multiple tables
- Write SQL to produce totals and subtotals in reports using aggregation operators
- Create queries which perform rankings of data and extract data samples from large tables
- Use SQL analytical functions
- Create and use temporary data structures

Accelerated Teradata SQL for Business Users

Lecture/Lab

ILT 36839	3 Days	On-site class - call for quote

Audience – **Core Curriculum:** Business Users
Prerequisites – SQL Experience

Course Overview

Designed for Business Users who are familiar with the use of SQL in an environment other than Teradata, this accelerated three-day course with hands-on workshops focuses on the Teradata differences to ANSI SQL and how they function in a parallel processing environment. The course provides an overview of the Teradata architecture and features hands-on practice retrieving and manipulating data.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the Teradata Database and relational theory at a high level
- Know the architecture and components of the Teradata Database and the benefits of using detail data
- Use Teradata Studio to submit queries to the Teradata Database
- Use Teradata's HELP facilities to retrieve information about your company's data structures
- Write queries in the SQL programming language that access single and multiple tables
- Write SQL to produce totals and subtotals in reports using aggregation operators
- Create queries which perform rankings of data and extract data samples from large tables
- Use SQL analytical functions
- Create and use temporary data structures

Teradata Advanced SQL

Lecture/Lab

ILT 25966	4 Days	Public class $2,200/student On-site class - call for quote

Audience – **Core Curriculum:** Application Developers, Data Analysts, **Optional:** Database Administrators, Architects/Designers
TCPP Exam Preparation – TE0-142
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

Designed for senior programmers and data analysts, this course focuses on advanced and analytic SQL features and techniques. Extensive hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Use various forms of derived, volatile and global temporary tables
- Work with the Window Aggregate and Extended Grouping functions
- Use the ANSI Merge syntax to merge data from source to target
- Write SQL using the RANK, QUANTILE and WIDTH_BUCKET analytic functions
- Work with advanced features, such as recursive subqueries, scalar subqueries, and interval data types
- Understand and use Date, Time and Timestamp

Teradata Application Design & Development

Lecture/Lab

ILT 28910	4 Days	Public class $2,200/student On-site class - call for quote

Audience – **Core Curriculum:** Application Developers, **Recommended:** Database Administrators, Architects/Designers
TCPP Exam Preparation – TE0-142, TE0-145, TE0-147
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This practical course focuses on the responsibilities of the Application Developer and covers the various tools, utilities, and built-in Teradata features available to assist in application development. Key advanced SQL concepts are also covered in depth. Extensive hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Understand transaction processing and interactions with locking
- Use secondary indexes and work with data type conversions
- Understand and apply Referential Integrity (RI), including "soft RI" as well as other application techniques including Triggers, and Identity columns
- Use the MERGE function and the associated error tables
- Write application programs using Stored Procedure Language (SPL)
- Know and apply the function and usage of queue tables

Teradata Application Utilities

Lecture/Lab

ILT 25967	3 Days	Public class $1,650/student On-site class - call for quote

Audience – **Core Curriculum:** Application Developers, **Recommended:** Database Administrators, **Optional:** Architects/Designers
TCPP Exam Preparation – TE0-144, TE0-145
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This practical course explores the concepts and use of BTEQ, FastLoad, MultiLoad, TPump and FastExport, including writing scripts for importing and exporting data in a Teradata environment. These utilities include performing SELECT, INSERT, UPDATE, DELETE and UPSERT operations in batch and real-time environments using the Teradata application utilities for maximum performance and efficiency. Extensive hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the purpose, features and usage of each data LOAD utility (BTEQ, FastLoad, MultiLoad, and TPump)
- Understand the purpose, features and usage of each data UNLOAD utility (BTEQ and FastExport)
- Code batch scripts to IMPORT data into the Teradata Database and EXPORT data to the host from the Teradata Database using BTEQ

UPDATED

Teradata Parallel Transporter

Lecture/Lab

ILT 34948	3 Days	Public class $1,650/student On-site class - call for quote

Audience – **Core Curriculum:** Application Developers, **Recommended:** Database Administrators, **Optional:** Architects/Designers
TCPP Exam Preparation – TE0-144, TE0-145
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This course explores and explains the features and functions of the Teradata Parallel Transporter (TPT) product. The Extract/Transform/Load (ETL) capabilities of TPT and its many special purpose "operators" are discussed in detail to support the writing of job scripts that are used to move data from one point to another. The benefits and flexibilities of a single scripting language to support all loading and unloading functions are demonstrated, incorporating examples of practical applications of TPT. Hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the role of TPT in loading/unloading a Teradata Database
- Recognize the different components that make up a TPT script, such as: DEFINE JOB, DEFINE OPERATOR, DEFINE SCHEMA, and APPLY
- Understand how to write TPT scripts with and without Simplicity
- Use and apply TPT Operators: Load, Export, Update, Stream, DataConnector, ODBC, and OS Command
- Execute the TPT Utility commands to manage the job submission and control environment
- Be familiar with advanced TPT features, including Directory Scan and parallel read

Integration Skills Training from SAS and Teradata

Lecture/Lab

ILT 37534	3 Days	On-site class - call for quote

Audience – SAS users new to Teradata or not very familiar with the functionality available to them via SAS/ACCESS to Teradata

Prerequisites – Basic knowledge of Teradata SQL, experience using SAS

Course Overview

This course is designed for data Analysts who use SAS in conjunction with the Teradata database. It provides attendees with a framework as well as specific hands on examples utilizing standard data for effectively using these two technologies in an integrated manner. Students will be exposed to an approach for most effectively leveraging the capability of the Teradata database from within their SAS environment, continuing to utilize SAS for the portions of the work it does best.

This course offers practical, hands-on experience using lecture, instructor-led exercises and independent practice exercises.

As an option, Teradata Course developer(s) can work with your subject matter experts (SMEs) to develop a customized course that provides real world examples from your current SAS/Teradata environment.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the behavior and options available with the SAS/ACCESS to Teradata interface
- Know how to use SAS/ACCESS to Teradata Implicit SQL Pass-Thru
- Assign a SAS library Referencing Teradata database
- Use SAS/ACCESS to Teradata Explicit SQL Pass-Thru
- Access Teradata via a Procedure to Produce Summary Statistics or Reports
- Access Teradata via a Select Statement to Produce Summary Statistics or Reports

NEW

Teradata Data Modeling Custom Training

Lecture/Lab

ILT 71000	Custom	Private class - call for quote

Audience – Data Modelers, Data Architects and Database Administrators (varies by module)
Prerequisites – Varies by module

Course Overview

Teradata Data Model Custom Training is composed of a series of modules that may be selected to build a tailored course that fits your exact business requirements and goals. The horizontal (applicable to all industries) course modules are organized into three tracks:

- Data Architecture & Modeling Theory – Integration Layer Track
- Implementing the Teradata Industry Data Model – Logical Track
- Implementing the Teradata Industry Data Model – Physical Track

In addition, a vertical (industry-specific) Teradata Industry Data Model Overview and Deep Dive Workshop module is also available. This part of the workshop can be designed to cover the specific subject areas within the Teradata Industry Data Model(s).

Teradata data modeling subject matter experts will review the training objectives and help you select the appropriate modules to be delivered. Individual modules may be scheduled as live webcasts, content permitting.

Course Objectives

The available course modules are as follows – a complete description of all modules, including objectives, is listed on **www.Teradata.com/TEN**.

Data Architecture & Modeling Theory – Integration Layer Track

- **Data Architecture (#71007 – 2 hours)** This module provides an overview of the architectural principles utilized in creating effective data architecture. Additionally, the students will gain insight into Teradata's Reference Information Architecture (RIA), Unified Data Architecture (UDA) and UDA components.

- **Data Modeling Concepts (#71006 – 2 hours)** This module provides insight on why a data model is important; how to define a data model including information regarding the various types of data models. The student will gain insight into what an Entity-Relationship Diagram (ERD) is and the components that make up an ERD.

- **Normalization (#71005 – 1 hour)** This module provides insight into normalization; defining what it is and why it's important. The student will gain an understanding of the levels of normalization and why one might want to de-normalize a database.

Implementing the Teradata Industry Data Model – Logical Track

- **Industry Data Model Design Principles, Patterns and Standards (#71012 – 2 hours)** This module is intended for those Teradata customers who have licensed one of Teradata's Industry Data Models (iDM) and wish to understand the underlying design principles, design patterns and standards that drove the design of the iDM.

- **Teradata Delivery Approaches (#71013 – 2 hours)** This module provides an overview of the Teradata suggested delivery approaches, waterfall and agile. At the end of this module, you will understand common methodologies and delivery approaches, Teradata's Waterfall approach, Teradata's Agile approach, Kanban, its value, key principles and how Kanban fits in with the Teradata Agile approach.

- **ERWin Techniques (#71004 – 4 hours)** This module provides an overview of the ERwin Data Modeler tool. Navigating an ERwin data model, with suggestions for viewing and moving through modeling diagrams is demonstrated. Key ERwin concepts such as subject areas, domains, the explorer pane, themes and how to find model objects and metadata are shown. An explanation of how ERwin splits a single model into both a logical and physical view and the objects and properties that go along with those views is presented. The content also covers the use of the Application Programming Interface (API) to make large scale changes to models using Visual Basic for Applications (VBA) within Excel.

- **Introduction to Access Layer Modeling (#71002 – 2 hours)** This module provides an overview of concepts and Teradata's advocated approach for delivering an access layer. Participants will be introduced to practical best practices in building an access layer through project planning, eliciting requirements, scoping business needs, designing both business and technical solutions, implementation tips, and validating to ensure high quality design of the access layer.

- **Model Mapping Approaches (#71001 – 2 hours)** This module is intended for those Teradata customers who have licensed one of Teradata's Industry Data Models (iDM) and wish guidance on the approach and steps for mapping data sources and industry standards to the data model. This course enumerates principles and process for mapping, and provides examples of various categories of mappings.

- **Customizing the Industry Data Model (#71011 – 2 hours)** This module is intended for those Teradata customers who have licensed one of Teradata's Industry Data Models (iDM) and wish guidance on the next steps with regards to data model customization approaches. This course is especially useful for those customers who are using the iDM as the primary guide and reference for their integrated analytical enterprise or cross functional data model and wish to keep track of their customizations.

Implementing the Teradata Industry Data Model – Physical Track

- **Physical Design and Implementation Concepts (#71010 – 4 hours)** This module provides an overview of the principles utilized in producing an implementation ready physical data model (PDM) and physical database design (PDD) from an enterprise logical data model (LDM). Additionally, owners of one of Teradata's Industry Data Models (iDM) will gain insight into overcoming the ERwin Data Modeler's inability to implement some of the Teradata features introduced in recent releases.

- **History, Time Variance and Temporal (#71009 – 4 hours)** This module provides an overview of the use of dates and time variance in an integrated data warehouse (IDW) data model. The various patterns associated with the implementation of dates in a data model, both with respect to supporting business rules and implementing the Valid and Transaction Time temporal concepts are covered. The module also reviews how the placement of date fields in data model primary keys can affect the support of business rules and provide guidelines for customizations when full support is not provided.

- **Alternate Code and Reference Structures (#71003 – 2 hours)** This module provides an overview of the principles utilized in implementing a reference data management solution as a part of an industry data model solution, with specific focus on utilizing the Global Control Framework (GCFR) BMAP solution, as well as the Master Data Management (MDM) Reference Data Management function.

- **Generating DDL out of ERwin Using Industry Data Model Accelerators (#71008 – 2 hours)** This module provides a methodology for generating implementation ready Data Definition Language (DDL) from an ERwin physical data model (PDM)/physical database design (PDD) using the collateral provided within the Teradata Industry Data Models.

Vertical Industry Data Model Workshop

- **Industry Data Model Overview and Deep Dive (#55421 – 1-3 days)** This course is intended for Teradata customers who have licensed one of Teradata's Industry Data Models (iDMs) and wish to gain a deeper understanding of the modeling and how it aligns to the business. This course provides a detailed exploration of subject area content in relationship to business data, business questions or scenarios, and Key Performance Indicators (KPIs).

  An iDM subject matter expert will customize each class, working with the client to determine which subject areas should be covered along with business area focus.

TERADATA.

Teradata Physical Database Design

Lecture/Lab

ILT 25968	4 Days	Public class $2,200/student On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators and Database Architects/Designers, **Recommended:** Application Developers

TCPP Exam Preparation – TE0-143, TE0-144, TE0-145, TE0-146, TE0-147

Prerequisites – Familiarity with Relational Database Modeling, Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458))

Course Overview

This course defines the processes and procedures to follow when designing and implementing a Teradata system. It covers Teradata data distribution, access, and use of derived data. Similarities between join and aggregation processing, and the implementation of Referential Integrity are also discussed. Various compression forms are explained in detail. Extensive hands-on labs help reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:

- Know the differences between logical and physical data models
- Understand Teradata data distribution and hashing ~ Know how to analyze design criteria and choose primary and secondary indexes
- Apply database sizing criteria, collection of statistics, and the use of the EXPLAIN facility
- Use tools to maximize space usage
- Be familiar with the use of the CREATE TABLE and CREATE INDEX statements along with their available options
- Understand and effectively use Multi-Value Compression
- Know how to use Partitioned Primary Indexes
- Understand the implications of the use of referential integrity

Teradata Physical Database Design Ramp Camp

Lecture/Lab

ILT 32746	5 Days	On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators, Designers/Architects, Application Developers

Prerequisites – Familiarity with Relational Database Modeling, Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), knowledge of ANSI SQL

Course Overview

This fast-paced, hands-on course is designed for students migrating to Teradata from another database platform. Accelerated instruction is provided on the differences between Teradata and ANSI SQL as well as the processes and procedures to follow for designing and implementing a Teradata database. Aspects of table design, Teradata data distribution, access, and use of derived data will be covered. Students should be highly proficient in another SQL language since basic SQL syntax will not be covered in this class. It is mandatory that each student complete the Introduction to the Teradata database WBT or Instructor-led class. Students without prior physical database design and SQL skills should enroll in the standard Teradata SQL, Teradata Advanced SQL, and Teradata Physical database design classes.

Course Objectives

After successfully completing this course, you will be able to:

- Submit SQL requests using BTEQ and Teradata Studio Express
- Understand many of the differences between Teradata and ANSI SQL, and know how to use the Teradata SQL extensions
- Know the differences between logical and physical data models
- Understand Teradata data distribution and hashing
- Know how to analyze design criteria and choose primary and secondary indexes
- Apply database sizing criteria, collection of statistics, and the use of the EXPLAIN facility
- Use tools to maximize space usage
- Be familiar with the use of the CREATE TABLE and CREATE INDEX statements along with their available options
- Understand and effectively use Multi-Value Compression
- Know how to use Partitioned Primary Indexes
- Understand the implications of the use of referential integrity

Teradata Physical Database Tuning

Lecture/Lab

ILT 25969	4 Days	Public class $2,200/student On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators, Architects/Designers, **Recommended:** Application Developers

TCPP Exam Preparation – TE0-143, TE0-144, TE0-145, TE0-146, TE0-147

Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), Teradata Physical Database Design (#25968)

Course Overview

This course builds on concepts learned in the Teradata Physical Database Design course, and provides an in-depth examination of the processes and procedures to follow once a Teradata database has been implemented and is in production. Performance and tuning topics involving advanced indexing strategies and querying topics are investigated. The EXPLAIN facility is utilized to analyze querying techniques and optimizer strategies.

Course Objectives

After successfully completing this course, you will be able to:

- Understand how transaction protocols interact with locking strategies and query parsing
- Optimize the use of Partitioned Primary Indexes (PPI)
- Apply efficient methods and strategies for the collection of statistics
- Be familiar with the strategies for the optimal use of Join Indexes, Hash Indexes and Aggregate Join Indexes
- Understand various EXPLAIN terminology using the EXPLAIN function
- Know and apply techniques to optimize SQL performance

Teradata Warehouse Administration

Lecture/Lab

ILT 25970	3 Days	Public class $1,650/student On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators
TCPP Exam Preparation – TE0-144, TE0-145
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), Teradata Physical Database Design (#25968)

Course Overview

This hands-on course provides a comprehensive view of the administrative activities required to successfully manage a Teradata data warehouse. The Teradata system environment, including Databases, Users, space allocation, and client software interfaces, is covered in detail. Also included are administrative functions: access rights, roles, profiles, session accounting, and data archive/recovery. Various administrative utilities are covered including the Database Window, Ferret, CheckTable, and the Recovery Manager. This is a "must take" course for Database Administrators.

Course Objectives

After successfully completing this course, you will be able to:

- Build and maintain the database environment
- Set up users, accounts, account IDs, and profiles
- Understand the Data Dictionary and dictionary views
- Know how database space is allocated and used
- Implement access rights and roles
- Use the System and Maintenance utilities
- Apply the Teradata data security and protection features
- Perform archive and restore functions

Teradata Warehouse Management

Lecture/Lab

ILT 25971	3 Days	Public class $1,650/student On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators
TCPP Exam Preparation – TE0-144, TE0-145, TE0-147
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), Teradata Physical Database Design (#25968), Teradata Warehouse Administration (#25970)

Course Overview

This course focuses on how a Teradata Database Administrator can effectively manage their Teradata Warehouse using Viewpoint, including an in-depth study of how to set up the tool. The use and function of Viewpoint portlets is discussed in detail. Also featured is a thorough study of Teradata Workload Management, including components of a Ruleset (states, sessions, filters, throttles, workloads and exceptions). Topics covered will include workload management using Integrated Workload Management (IWM) and Teradata Active System Management (TASM). The course is concluded with an explanation of memory utilization and the DBS Control Utility. Learning is reinforced throughout the course with hands-on exercises.

Course Objectives

After successfully completing this course, you will be able to:

- Understand how to set up and use Viewpoint
- Be acquainted with the various Viewpoint portlets and their use
- Set up Alerts using Viewpoint
- Know how to use the Viewpoint Workload Monitor
- Understand Teradata Workload Management capabilities (Includes TIWM and TASM)
- Define and set up filters and throttles
- Define, set up and monitor workloads
- Use resource prioritization techniques and system regulation
- Understand how memory is managed, and how to use the DBS Control utility

Teradata Viewpoint

Lecture/Lab

ILT 49663	2 Days	Public class $1,100/student On-site class - call for quote

Audience – **Core Curriculum:** Database Administrators
Prerequisites – Introduction to the Teradata Database (Instructor-led (#25964) or WBT (#26438)), Teradata SQL (Instructor-led (#25965) or WBT (#54458)), Teradata Physical Database Design (#25968), Teradata Warehouse Administration (#25970)

Course Overview

This hands-on course focuses on the effective use of Teradata Viewpoint. Included is an in-depth study of how to set up Viewpoint portlets, how to set up and monitor Viewpoint alerts, and how to use various portlets to monitor system performance by monitoring active queries and system metrics. A brief overview of workload management is included in this course.

Course Objectives

After successfully completing this course, you will be able to:

- Understand how to set up and use Viewpoint
- Be able to set up and manage Viewpoint users and roles
- Understand the configuration and metrics of Viewpoint alerts
- Be acquainted with Business User, Technical User, and Administrative User Viewpoint portlets
- Be familiar with Teradata's workload management capabilities

NEW

Enterprise Data Management and Data Governance Workshop

Lecture/Lab

ILT 55046	2.5 Days	On-site class - call for quote

Audience – Business and IT teams wishing to understand Enterprise Data Management and Data Governance practices and applicability to their organization
Prerequisites – None

Course Overview

This workshop provides an understanding of core concepts in Enterprise Data Management and Data Governance. Included in the workshop are discussions of best practices, business value, and technology enablers (vendor agnostic). Custom exercises will enable students to have a head start toward implementing or improving Enterprise Data Management and Data Governance within their own organization.

Course Objectives

After successfully completing this course, you will be able to:

- Describe Enterprise Data Management and Data Governance and explain why they are important
- Know how to align Enterprise Data Management and Data Governance to achieve real business value
- Understand the core components of Enterprise Data Management including Data Quality Management, Metadata Management, Data Integration, Security/Privacy, Master Data Management, and Data Architecture and Modeling
- Explain Data Governance and Stewardship, including the role played within EDM components, governing bodies and roles, and practical implementation strategies
- Describe the role of Business Intelligence in delivering consistent and actionable information
- Design and leverage organizational processes including Enterprise Architecture, Project Portfolio Management, Solution Development Life Cycle, and existing corporate strategies to make EDM a part of the way the organization does business
- Understand practical steps for implementing Enterprise Data Management within the organization with value at each step

NEW

Introduction to Teradata Aster

Lecture/Lab

ILT 55171	1 Day	Public class $600/student On-site class - call for quote

Audience – Database Administrators, Designers/Architects, Data Analysts
Prerequisites – None

Course Overview

The purpose of this course is to technically acquaint the student with the Teradata Aster database. Key topics include database and schema data modeling, creating tables, data acquisition and preparation, data loading, Map Reduce (SQL-MR), and selected analysis functions. The course is concluded with data visualization using Teradata Aster AppCenter and an overview of Teradata Aster R. Learning is reinforced throughout the course with hands-on exercises.

Course Objectives

After successfully completing this course, you will be able to:

- Create Aster databases and schemas to provide the system's organizational and management structure
- Create fact and dimension tables in the Aster database
- Create logically partitioned tables from either a fact or dimension table
- Load data into the Aster database using nCluster Loader, and customize nCluster Loader processing
- Explain the design and syntax of SQL-MR functions
- Compare and contrast Map (Row) and Reduce (Partition) functions
- Use data acquisition and preparation functions
- Describe the how eight popular analysis functions work
- Understand why data visualization is important to analytics
- Create and run visualization Apps with Teradata Aster AppCenter
- Know the difference between R and Aster R, and be able to run Aster R commands in RStudio

Teradata Aster Analytics

Lecture/Lab

ILT 52933	3 Days	Public class $1,800/student

Audience – **Core Curriculum:** Aster Database Administrators, Designers/Architects, Application Developers, Data Analysts
Prerequisites – Working knowledge of SQL

Course Overview

Designed for users of the Teradata Aster environment, this course provides an overview of the architecture, terminology, and usage models. Use of the most popular Teradata Aster Analytic Functions is emphasized, including practical, hands-on experience with loading, retrieving, and manipulating data.

Course Objectives

After successfully completing this course, you will be able to:

- Understand the Teradata Unified Architecture which incorporates Teradata, Teradata Aster and Hadoop
- Be familiar with Teradata Aster data structures and data loading
- Gain practical knowledge of the Teradata Aster Analytic Functions through hands-on labs:
  - nPath
  - Attribution, Basket Generator, Collaborative Filtering
  - Parsers – XML, JSON, ApacheLog, Text
  - Graph Functions
  - naiveBayes Functions
  - Correlation, Histogram, GLM, KNN, ConfusionMatrix, PCA
  - Canopy, Kmeans, Kmeansplot, Minhash,
  - Decisiontree/Forestdrive
  - Pack, Unpack, Pivot, Unpivot, Multicase, Antiselect, Outlier Filter
  - Aster Lens Visualization
- Be familiar with Teradata Aster sample business use cases

Teradata Aster Database Administration

Lecture/Lab

ILT 50002	3 Days	Public class $1,800/student

Audience – **Core Curriculum:** Aster Database Administrators
Prerequisites – Teradata Aster Analytics (#52933)

Course Overview

This practical course is designed for Teradata Aster Database Administrators, and covers building, loading, configuring and managing the Aster cluster. Hands-on exercises and case studies reinforce real-world implementation and best practices.

Course Objectives

After successfully completing this course, you will be able to:

- Create databases, schemas, and tables
- Know the rules of Aster modeling
- Load data
- Manage tables and connectors
- Create users, assign privileges and roles
- Configure workloads based on predicates of your choice
- Back-up and restore Aster tables
- Use the Data Dictionary, selected Aster scripts, and Ganglia
- Identify bottlenecks and resolution strategies
- Read and interpret Log Files

NEW

Teradata Aster Analytics Workshop

Lecture/Lab

ILT 51371	4 Days	On-site class - call for quote

Audience – **Core Curriculum:** Data Analysts/Scientists
Prerequisites – Introduction to Teradata Aster (Instructor-led (#55171)) or Introduction to Teradata Aster Analytics (WBT (#55211))

Course Overview

This highly interactive workshop explores core concepts of the most popular SQL-MR functions (over 50). Each SQL-MR function presented follows a similar path as follows (Definition, Syntax, Arguments, Hands-on lab). Typically a canned SQL-MR query example is presented followed by a different use case and dataset where the students then write the code from scratch to confirm knowledge transfer.

In addition to writing queries from Aster's pre-installed functions, there is an Eclipse module which will take you through the process of installing the Aster Development Environment (ADE) and then writing custom SQL-MR functions via JAVA code.

Course Objectives

After successfully completing this course, you will be able to:

- Use Teradata QueryGrid connectors via Foreign Server to join to a remote database for Teradata and Hadoop
- Visualize your data using Teradata AppCenter from nPath and cFilter output using various chart types
- Write SQL-MR Java code using the Eclipse utility
- Load and Parse XML, CSV, JSON, and web log files from the Aster File System (AFS)
- Write code for the top 50 Aster functions including nPath, Lars, Decision Trees, Naïve Bayes, Collaborative Filtering, Text Analytics and dozens more
- Code using the Aster Graph functions including Betweenness, Closeness, Eigenvector and PageRank
- Write Aster R code for most popular Aster functions along with visualizing your output

NEW

Introduction to Teradata Aster R

Lecture/Lab

ILT 54981	1 Day	Public class $600/student On-site class - call for quote

Audience – Data Analysts
Prerequisites – Familiarity with SQL

Course Overview

This fast-paced hands-on workshop gives you all the knowledge you need to get up and running quickly on Teradata Aster R. After a brief explanation of the differences between 'regular' R and 'Teradata Aster R', we dive right into core R concepts and terminology. Basic R commands are explained along with in-line labs by the Instructor.

You first will learn the difference between R vectors, matrixes, factors, and data frames. Once R is mastered, we will move onto Teradata Aster R concepts and commands. Dozens of Teradata Aster R functions are covered (e.g., ta.connect, ta.Query, ta.load.csv, ta.summary, ta.kmeans, ta.sentiment.extract, etc.)

Rounding out the course will be a detailed examination of running visualizations in both RStudio and Teradata Aster AppCenter. Labs will be performed using ggplot, circlize, rattle, rpart.plot and RColorBrewer functions in RStudio using base Aster objects. This is followed by building Teradata AppCenter applications and creating both Tree and Sankey charts as well as a Sigma chart

Course Objectives

After successfully completing this course, you will be able to:

- Navigate the RStudio interface to both query and execute code
- Know how to use basic 'R' commands, including how to set up variables and enter data from the keyboard, how to create vectors, matrixes, lists, factors and data frames
- Be able to select elements from a vector
- Access and use built-in R datasets
- Know how to clean R data prior to Teradata Aster R ingestion
- Use Teradata Aster R packages
  - o Utility and Management functions
  - o Data Access and Preparation functions
  - o Parallel Analytic functions
  - o Aster R MapReduce runners
- How to create visualization charts with both RStudio and Teradata Aster AppCenter

NEW

Hadoop Decoded

Lecture/Lab

ILT 54252	3 Days	Public class $1,800/student On-site class - call for quote

Audience – Data Analysts, Database Administrators, Architects/Designers
Prerequisites – Familiarity with the basics of Hadoop, and experience with a command-line interface

Course Overview

Hadoop Decoded is an intensive three-day hands-on workshop that uses real-life examples throughout. The workshop will explore the most popular Hadoop projects (Hive, Pig, HBase, Solr, Spark, Storm, etc.), providing a working knowledge of their capabilities and when to use them. In addition, Teradata integration products that work with Hadoop (QueryGrid, Presto, Spark, etc.) will be discussed.

Real-world use cases and scenarios, along with extensive hands-on labs, reinforce learning. NOTE: It is not necessary to know how to code Java; code will be pasted into Eclipse. However, the code will be explained at a high level.

Course Objectives

After successfully completing this course, you will be able to:

- Describe the Hadoop architecture and components, and why companies use Hadoop
- Load data into Hadoop, using various Hadoop tools and integration strategies.
- Describe the YARN framework, where it fits in the Hadoop ecosystem, core components, and how it supports diverse big data workloads
- Articulate the architectures and data types of the Hadoop tools and projects which are available.
  - o HDFS, MapReduce and YARN components
  - o Hive
  - o Pig
  - o Spark
  - o Ingestion Utilities (Sqoop, Flume, Teradata QueryGrid connectors, etc)
  - o Others (Kafka, Storm, HBase, Solr, RStudio)
- Describe how to integrate Hadoop into projects using various Teradata tools and utilities, and compare them to traditional database design patterns

*HDP = Hortonworks Data Platform

Cloudera Training

Lecture/Lab – Developed and Presented by Cloudera

3-4 Days | Call for quote

Audience – Cloudera Developers, Administrators, and Analysts
Prerequisites – Vary by audience and class

Course Overview

With our partner Cloudera, Teradata offers a full curriculum of courses for Cloudera developers, administrators, and analysts. Scheduling is flexible, including virtual attendance options.

Sample Courses

Cloudera Developer Training

- Developer Training for Spark and Hadoop (4 days)
- Designing and Developing Big Data Applications (4 days)
- Data Science at Scale using Spark and Hadoop (3 days)
- Search Training (3 days)
- HBase Training (3 days)
- Spark Training (3 days)
- MapReduce for Developers (4 days)

Cloudera Administrator Training

- Cloudera Administrator Training (4 days)

Cloudera Analyst Training

- Data Analyst Training (4 days)

Hortonworks Training

Lecture/Lab – Developed by Hortonworks

2-4 Days | Call for quote

Audience – Hortonworks Developers, Administrators and Analysts
Prerequisites – Vary by audience and class

Course Overview

With our partner Hortonworks, Teradata offers a full curriculum of courses for Hortonworks developers, systems administrators, and analysts. Scheduling is flexible, including virtual attendance options.

Sample Courses

Hortonworks Developer Training

- HDP Developer: Java (4 days)
- HDP Developer: Apache Pig and Hive (4 days)
- HDP Developer: Windows (4 days)
- HDP Developer: Custom YARN Applications (2 days)
- HDP Developer: Storm and Trident (2 days)

Hortonworks Systems Administrator Training

- HDP Operations: Migrating to the Hortonworks Data Platform (2 days)
- HDP Operations: Apache HBase Advanced Management (4 days)
- HDP Operations: Hadoop Administration I (4 days)
- HDP Operations: Hadoop Administration II (3 days)

Hortonworks Analyst Training

- HDP Analyst: Data Science (3 days)
- HDP Analyst: Apache HBase Essentials (2 days)

MapR Training

Lecture/Lab – Developed and Presented by MapR

1-3 Days | Call for quote

Audience – MapR Developers, Administrators, and Data Analysts
Prerequisites – Prerequisites vary by audience and class

Course Overview

With our partner MapR, Teradata offers a full curriculum of courses for MapR developers, administrators, and data analysts. Scheduling is flexible, including virtual attendance options.

Sample Courses

MapR Developer Training

- Developing Hadoop Applications (3 days)
- HBase for Analysts and Architects (1 day)
- HBase Applications Design and Build (3 days)
- Real-time Stream Processing with MapR (1 day)
- Developing Apache Spark Applications (3 days)
- Self-service SQL Analytics with Apache Drill (2 days)

MapR Administrator Training

- Cluster Administration (3 days)

MapR Analyst Training

- HBase for Analysts and Architects (1 day)
- Self-service SQL Analytics with Apache Drill (2 days)
- Data Analysis with Apache Pig and Apache Hive (2 days)

*HDP = Hortonworks Data Platform

Getting Started with Teradata Customer Interaction Manager

Lecture/Lab

ILT 70007	3 Days	On-site class - call for quote

Audience – Marketing program subject matter experts who will be designing the use of the CIM application for your company
Prerequisites – None

Course Overview

Intended for new clients or those who are implementing new Teradata Applications products, this course provides an interactive introduction to CIM features and functions. Hands-on activities give practical experience and reinforce learning.

Course Objectives

After successfully completing this course, you will be able to:
- Understand the capabilities and use of key CIM modules:
  - Segments and Segment Plans
  - Data Sources and Extended Data Sources
  - Communications and Communications Plans

Teradata Customer Interaction Manager Administration

Lecture/Lab

ILT 52220	3 Days	On-site class - call for quote

Audience – Database Administrators, CIM Administrators, and those responsible for customizing the CIM client
Prerequisites – Getting Started with Teradata Customer Interaction Manager (#70007) or Teradata Customer Interaction Manager Bootcamp (#70000) is strongly recommended – and/or working knowledge of the CIM client application; basic knowledge of SQL and experience with client

Course Overview

This course is designed to assist the Teradata Customer Interaction Manager (CIM) administer and maintain their CIM application environment. Students will gain an understanding of the CIM software components and how the components interact to accomplish the applications functions. System monitoring and administration are also covered in detail.

Course Objectives

After successfully completing this course, you will be able to:
- Understand the CIM architecture – the four layer model
- Configure the database (Core and Tables/View layer)
- Be familiar with the CIM GUI
- Be able to administer Security, including Folder Security
- Understand and use the Metadata Application Utility (MAU)
- Use the MAU's Wizard to add a table
- Map attributes using the MAU
- Customize your CIM environment using Custom Attributes
- Know how Processing Engines work
- Understand Error and Error Log handling using Log4j
- Create Schemas
- Configure QueryBanding in CIM
- Set up Password Manager
- Implement 1 to 1 logon
- Use Purge Run Scripting

*HDP = Hortonworks Data Platform

Teradata Certified Professional Program

A Teradata Certification is a differentiator in today's quickly changing and competitive IT environment. Maximize your competitive advantage – become certified in the leading Data Warehouse DBMS technology. Teradata certification is available globally to customers, partners, associates, and students. Over 63,500 Teradata Certifications have been awarded and are recognized by major global organizations as an industry-standard measure of technical competence for IT professionals using Teradata technology.

Tell Your Professional Story!

Did you know, that on average, LinkedIn® members with certifications in their profile receive 6 times more views than those without certifications listed? When you earn a new Certification or want to add a Certification you have already earned, follow these three easy steps to seamlessly add them to LinkedIn®.

1. Login to the Teradata Certification Tracking System.
2. Select Certifications, click "add to LinkedIn"
3. Click "Add to profile" and you are all set! (Note: you may be prompted to login to your LinkedIn® profile during this process if you are not already.)

TCPP Program Updates

Teradata 14 Certification

The Teradata 14 Technical Certification track includes exams based on the following database releases: Teradata Database 13.0, Teradata Database 13.1, and Teradata Database 14.0 (including SLES 11). Detailed information about this Certification track is available at **www.Teradata.com/Certification**.

Making it Easy to Keep Your Certification Current

Stay current with our easy upgrade path to Teradata 14: Teradata 14 Bridge from Teradata 12 Exam (Exam ID: TE0-14B). Candidates in good standing that have achieved any of the following Teradata 12 Certification(s) are eligible to take the Teradata 14 Bridge from Teradata 12 exam:

- Teradata 12 Certified Technical Specialist
- Teradata 12 Certified Database Administrator
- Teradata 12 Certified Solutions Developer
- Teradata 12 Certified Enterprise Architect

The Bridge exam is a hybrid of the three (3) Teradata baseline Certification exams, and covers content changes (between Teradata 12 and Teradata 14) to the Teradata Basics, Teradata SQL and Teradata Physical Design and Implementation exams. A passed exam result on the Bridge exam will yield the "Teradata 14 Certified Technical Specialist" designation. A candidate may then continue on the Teradata 14 track until achieving the desired Certification level.

Teradata 12 Masters Upgrade

Teradata 12 Certified Masters will take one exam to update to Teradata 14 Certified Master (TE0-147: Teradata 14 Comprehensive Mastery Exam).

TERADATA

Pursue Teradata Certification With Confidence

Teradata Authorized Study Guides And Ebooks

The Teradata Certified Professional Program (TCPP) offers exam study guides to support your Teradata Certification goals. Each guide is designed as a study companion that may be combined with recommended Teradata training courses and practical experience using Teradata technology.

- These study guides may be purchased through
  - o Hard copy books: Amazon and Greenleaf
  - o Electronic books: Apple iBook store (apple.com/iTunes) or, for Android devices, Kobo Books (kobo.com)

Teradata Certification App

The Teradata Certification App (TCaPP) is available for Apple iOS and Android devices. Download the FREE Teradata Certification App for convenient, mobile access to Teradata Certification information:

1. Visit the Apple App Store or Google Play Market on your mobile device
2. Search "TCaPP" or Teradata
3. Download the App

Access these features directly through TCaPP:

- *Teradata Certified Professional Program information:* General program information is at your fingertips.
- *Exam Registration:* Quick access to exam registration.
- *Certification Tracking:* Check your certification history, access results and view certificates.
- *Certification Study Guides:* Purchase study guides directly through the app.
- *Exam Practice Questions:* Access five free sample questions before making this in-app purchase. Each exam has 100 exam practice questions available. Purchase 100 questions and SAVE! Or, purchase practice questions in packs of 25 and come back for more!
- *Comprehensive Mastery Exam Prep:* Choose from one of these interactive formats to help prepare for the Comprehensive Mastery Exam (TE0-147):
  1. For the Apple iPad: download the free TCaPP App and make the in-app purchase (iOS only) OR
  2. Download in eBook format for all of your favorite tech tools (through TCaPP or Kobo).

Please note: both of the above Mastery prep tools contain the same content, only presented in a different format.

Teradata Certified Professional Makes Top 10

1. **PMI Program Management Professional - $147,120**
2. **Open Group TOGAF 9 - $144,250**
3. **(ISC)2 CSSLP - $143,210**
4. **EC-Council CCISO -$143,050**
5. **(ISC)2 CISSP Architecture - $141,230**
6. **Teradata 14 Certified Professional - $139,580**
7. **Open Group Sertified IT Specialist - $138,500**
8. **(ISC)2 CISSP Engineering - $137,320**
9. **Checkpoint Certified Security Administrator - $137,000**
10. **IBM Certified Solution Architect - $135,940**

Teradata 14 Certified Professional came in at number six out of over 800 certifications in the CertMag Annual Salary Survey for 2015.

Salaries based on reported US average.
Source: CertMag February 2016

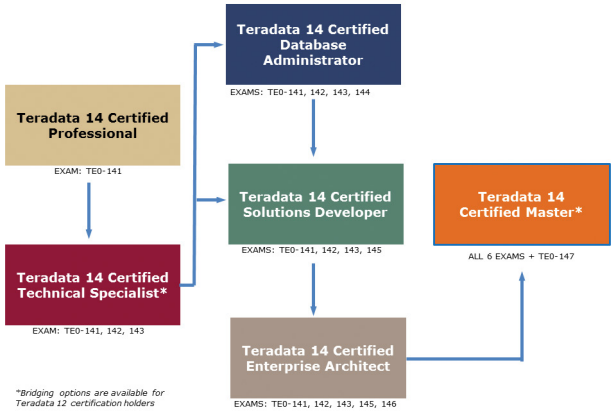
Aster Certification Development

An entry level Aster Certification is under development. For information visit **www.Teradata.com/certification/aster**. The beta process will be completed in July and the exam will be live in August 2016. Be the first to achieve a Teradata Aster Certification.

General Program Information

Exam Registration

For information on how to register for exams, visit **www.Teradata.com/Certification**.



The flowchart and matrix are designed to help define your path to the knowledge, skills, and experience needed to achieve Teradata 14 Certifications. Complete information about Teradata Certification is available on the TCPP website at: **www.Teradata.com/Certification.**

Teradata 14 Certification Track

	Certified Professional	Certified Technical Specialist	Certified Database Administrator	Certified Solutions Developer	Certified Enterprise Architect	Certified Master
Traditional Path: Recommended Preparation Courses						
Introduction to the Teradata Database	●	●	●	●	●	●
Teradata SQL		●	●	●	●	●
Advanced Teradata SQL		●	●	●	●	●
Physical Database Design		●	●	●	●	●
Physical Database Tuning		●	●	●	●	●
Teradata Application Utilities			●	●	●	●
Teradata Parallel Transporter			●	●	●	●
Teradata Warehouse Management			●		●	●
Teradata Warehouse Administration			●		●	●
Teradata Application Design and Development				●	●	●
Certification Exams (To Be Taken In Sequential Order)						
TE0-141 – Teradata 14 Basics	●	●	●	●	●	●
TE0-142 – Teradata 14 SQL		●	●	●	●	●
TE0-143 – Teradata 14 Physical Design and Implementation		●	●	●	●	●
TE0-144 – Teradata 14 Database Administration			●			●
TE0-145 – Teradata 14 Solutions Development				●	●	●
TE0-146 – Teradata 14 Enterprise Architecture					●	●
TE0-147 – Teradata 14 Comprehensive Mastery						●
Upgrade Path From Teradata 12: Recommended Preparation Courses						
Teradata Warehouse Differences: 13.0, 13.10, and 14.0 (including SLES 11)		●	●	●	●	●
Teradata Application Utilities			●	●	●	●
Teradata Parallel Transporter			●	●	●	●
Teradata Warehouse Management			●		●	●
Teradata Warehouse Administration			●		●	●
Teradata Application Design and Development				●	●	●
Certification Exams						
TE0-14B – Teradata 14 Bridge from Teradata 12*		●	●	●	●	●
TE0-144 – Teradata 14 Database Administration			●			●
TE0-145 – Teradata 14 Solutions Development				●	●	●
TE0-146 – Teradata 14 Enterprise Architecture					●	●
TE0-147 – Teradata 14 Comprehensive Mastery						●
Upgrade Path For Teradata 12 Masters						
TE0-147 – Teradata 14 Comprehensive Mastery						●
Recommended Experience	6-12 Mos	1-2 Yrs	2-3 Yrs	2-3 Yrs	2-3 Yrs	5+ Yrs

*TE0-14B is an eligibility based exam. Only candidates in good standing, holding a Teradata 12 Technical Specialist Certification or more advanced certification, are eligible to take this exam.

Temporal topics are covered on the Teradata 14 SQL exam (TE0-142). Please refer to **Teradata.com/Certification** for a list of specific Temporal objectives.

Teradata Corporation's official certification exams and credentials are developed, copyrighted, and managed solely by the Teradata Certified Professional Program (TCPP). To achieve your training and certification goals, pursue only authorized courses of study and use only authorized study materials as outlined on the official TCPP web site: **www.Teradata.com/Certification.**

What Our Satisfied Customers Are Saying

"The course book serves a good reference when I am back in the office. The labs were helpful to reinforce ideas presented. The instructor had a broad range of knowledge beyond just what was presented in the course."

"Excellent course, which has aided in my overall knowledge of Teradata Concepts and being able to use gained essentials in everyday practical application. Excellent instructor. Enjoyed the class."

"The book/handout is a valuable resource I will be keeping as I go about my job."

"[The instructor] is amazing. We had a shorter schedule and he sped up the pace of the lectures while giving us plenty of practice time. He obviously has a passion for the subject and a very wide and deep knowledge of it. This is definitely conveyed when he teaches."

"[The instructor] was absolutely an expert."

Visit **www.Teradata.com/TEN/catalogsandschedules** for a complete list of Teradata class offerings/schedules.

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