

**Snowflake SnowPro Advanced Data Engineer**

**Course Number:** SQL-716EC  
**Duration:** 3 days

**Overview**

This Snowflake training takes attendees from data ingest to insightful analysis and prepares them for the SnowPro Advanced Data Engineer exam, an advanced-level certification. Participants also learn the real-world skills they need to manage, transform, and analyze data using Snowflake.

**Prerequisites**

* SnowPro Core training or equivalent experience.
* A working knowledge of restful APIs, SQL, and a solid programming background are ideal.

**Materials**

All Snowflake training students receive comprehensive courseware.

**Software Needed on Each Student PC**

All attendees will need access to a Snowflake SQL environment with Accelebrate’s sample data loaded.

**Objectives**

* Master Snowflake, including loading files, building pipelines, and sharing insights
* Craft lightning-fast queries and monitor performance
* Shape data with UDFs, external functions, and Snowpark's Python and Scala features
* Fortify your data with authentication, granular access control, and robust backup strategies
* Extract actionable insights and make data-driven decisions

**Outline**

* Introduction
* Data Movement
  + Loading and unloading data
  + Data formats and types
  + Data pipelines
  + Connectors
  + Data sharing
  + External tables and materialized views
  + Partitioning
* Performance Optimization
  + Query optimization
  + Caching
  + Monitoring continuous data pipelines
* Storage and Data Protection
  + Time Travel
  + Fail Sage
  + Backups and Rollbacks
  + Testing pre-deployment
* Security
  + Authentication methods
  + RBAC
  + Data governance
  + Column/Row-level security
* Data Transformation
  + User Defined Functions (UDFs)
  + SQL, JavaScript
  + External Functions
  + Transaction management
  + Semi-structured data transformation
  + Snowpark
* Conclusion