

Data Analytics Fundamentals for DA0-001

CompTIA DA0-001 Data Analytics. Data collection, manipulation, and visualization fundamentals.

IT Certifications Instructor: Brian Taylor • 5 sections • 45 lessons • 17.50h total

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About this course

Many professionals struggle to find relevant study materials for the DA0-001 exam, often encountering outdated content. This course cuts through the noise by focusing on the core competencies and practical skills you need for 2026, providing a structured learning path.

You will learn how to apply core data collection, manipulation, and visualization techniques through step-by-step guides and real case study analysis. We cover the essential concepts tested on the exam with downloadable templates and practical problem-solving sessions.

Course curriculum

Foundations and Preparation

- **Understanding the DA0-001 Exam Objectives (12m)**
We'll break down the official exam domains for 2026, so you know exactly what to focus your study time on from day one.
- **Setting Up Your Analytics Toolkit (22m)**
A practical, step-by-step guide to installing and configuring the essential software and platforms you'll need for hands-on practice.
- **Core Data Concepts Explained (18m)**
Learn the fundamental terminology and ideas that form the bedrock of all data analytics work, with clear, real-world examples.
- **Building a Study Plan That Actually Works (9m)**
Get a downloadable template to map out your study schedule, manage your time, and track your progress effectively.
- **Ethics and Governance in Data Analytics (15m)**
A problem-solving session on navigating common ethical dilemmas and understanding data governance principles you'll face on the job.
- **Data Literacy: Reading Reports and Dashboards (28m)**
We'll show you how to interpret common visualizations and reports, a key skill tested in the conceptual sections of the exam.
- **Common Pitfalls for DA0-001 Candidates (11m)**
Learn about the most frequent mistakes candidates make and how you can avoid them with a proactive approach.

Data Acquisition and Manipulation

- **Methods for Data Collection and Acquisition (25m)**
Explore various techniques for gathering data from different sources, including APIs, databases, and flat files.
- **Data Cleaning: Handling Missing Values and Outliers (32m)**
A hands-on, step-by-step guide to identifying and resolving common data quality issues that can skew your analysis.
- **Data Transformation: Shaping Data for Analysis (29m)**
Learn how to pivot, aggregate, and join datasets to prepare them for meaningful insights.
- **Working with SQL for Analytics (35m)**
A practical session on writing SELECT queries, using WHERE clauses, and performing JOINS to extract the data you need.
- **Using Spreadsheets for Data Wrangling (21m)**
Master essential spreadsheet functions like VLOOKUP, INDEX/MATCH, and pivot tables for quick data manipulation.

- **Understanding Data Types and Structures (14m)**
A quick problem-solving session to solidify your understanding of structured vs. unstructured data and appropriate data types.
- **Automating Repetitive Data Tasks (26m)**
Discover basic automation techniques and scripts that can save you hours of manual data prep work.
- **Data Validation and Quality Assurance (19m)**
We'll cover best practices for checking your work and ensuring the integrity of your datasets before analysis.
- **Real-World Case: Preparing Sales Data for Analysis (38m)**
A comprehensive case study where we take messy sales data and transform it into a clean, analysis-ready format.

Analysis and Visualization

- **Foundational Statistical Concepts for Analysts (27m)**
Learn the key statistical measures like mean, median, and standard deviation that you need to interpret data correctly.
- **Choosing the Right Visualization for Your Data (16m)**
A practical guide to matching your data type and message with the most effective chart (e.g., bar, line, scatter).
- **Building Your First Dashboard in Power BI (34m)**
A step-by-step walkthrough of connecting to a data source, creating visuals, and building an interactive dashboard.
- **Introduction to Python for Data Analysis (31m)**
Get started with Pandas and Matplotlib to perform analysis and create visualizations programmatically.
- **Identifying Trends and Patterns in Data (23m)**
We'll show you techniques for exploratory data analysis (EDA) to uncover hidden insights and correlations.
- **Calculating Key Performance Indicators (KPIs) (18m)**
Learn how to define and compute the business metrics that matter, with a downloadable KPI definition template.
- **A/B Testing: Analyzing Experimental Results (25m)**
A problem-solving session on how to set up, run, and interpret the results of a simple A/B test.
- **Real Case Study: Analyzing Marketing Campaign ROI (39m)**
A deep dive into a real-world marketing dataset to determine which channels provided the best return on investment.

Advanced Application and Interpretation

- **Communicating Insights to Stakeholders (20m)**
Learn how to build a compelling data story and present your findings in a way that drives action.
- **Advanced SQL: Subqueries and Window Functions (36m)**
Level up your SQL skills with techniques for more complex queries needed for advanced analysis.

- **Data Modeling Concepts for Analysts (24m)**
Understand star schemas, snowflake schemas, and how data warehouse design impacts your analysis.
- **Working with Big Data Concepts (17m)**
A high-level overview of the tools and ideas behind big data, ensuring you're prepared for modern data environments.
- **Version Control for Analytics Projects (13m)**
A quick guide to using Git to track changes in your scripts and collaborate with other analysts.
- **Problem-Solving: Debugging Faulty Analysis (30m)**
We'll walk through a scenario where the numbers don't add up and show you how to trace back to the source of the error.
- **Optimizing Dashboard Performance (22m)**
Learn practical tips to make your dashboards load faster and respond more smoothly for a better user experience.
- **Real Case Study: Forecasting Future Sales Trends (40m)**
An advanced session using historical data to build a simple forecast model and present the potential future outcomes.
- **Ethical Considerations in Data Storytelling (11m)**
A focused discussion on how to present data honestly and avoid misleading visualizations.
- **Peer Review: Giving and Receiving Feedback (15m)**
A practical exercise in how to critique a fellow analyst's work and incorporate feedback into your own.

Implementation and Exam Readiness

- **Full-Length Practice Exam Walkthrough (32m)**
We'll tackle a set of practice questions together, explaining the reasoning behind each correct answer.
- **Timed Mock Exam Session (90 Minutes) (90m)**
A full-length, timed mock exam to simulate the real test environment and identify your remaining weak spots.
- **Reviewing Your Mock Exam Results (26m)**
A step-by-step guide to analyzing your performance on the mock exam and creating a final targeted study plan.
- **Test-Taking Strategies and Time Management (14m)**
Learn techniques for pacing yourself, handling difficult questions, and maximizing your score on exam day.
- **Key Formulas and Concepts Cheat Sheet (8m)**
A downloadable cheat sheet with the most important formulas and concepts to review in the final hours before the exam.
- **Setting Up Your Exam Environment (10m)**
Practical advice on what to expect with online proctoring, system checks, and creating a distraction-free space.
- **What to Expect on Exam Day (7m)**
A calm-down guide walking you through the entire process from login to submitting your final answers.

- **Career Paths After DA0-001** (19m)

Explore potential job roles, next-step certifications, and how to leverage your new certification in the job market.

- **Building a Portfolio with Real Projects** (28m)

We'll show you how to take the case studies from this course and present them as professional portfolio pieces.

- **Continuing Your Learning Journey** (12m)

Get a curated list of resources, communities, and advanced topics to explore to stay current in the field of data analytics.

- **Final Q&A and Words of Encouragement** (9m)

A wrap-up session addressing common last-minute questions and sending you off with confidence for your exam.

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