

Google Data Analytics Professional 2026 Course

Learn data analysis tools and techniques for the Google Professional Certificate, perfect for beginners and career changers.

Data Analytics Instructor: Neven Elson • 5 sections • 52 lessons • 27.75h total

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About this course

Earning the Google Data Analytics Professional Certificate in 2026 requires updated skills in SQL, R, and visualization tools. This course tackles the common challenges of navigating the new curriculum and building practical data skills. You'll progress through structured modules with video lectures, real-world case studies, and focused exercises to prepare for the certification exam and apply analytics in jobs.

Course curriculum

Foundations and Preparation

- **Introduction to Google Data Analytics Certification (12m)**
Overview of the 2026 certificate structure, key skills covered, and what to expect from the exam.
- **Understanding the 2026 Curriculum Updates (18m)**
Breakdown of new topics and tools added to the Google Data Analytics program for 2026.
- **Setting Up Your Data Analytics Toolkit (25m)**
Step-by-step guide to installing software like Google Sheets, SQL environments, and R for analysis.
- **Basic Concepts in Data Analysis (20m)**
Core terms and methods in data analysis, including types of data and common metrics.
- **Introduction to Data Ethics and Privacy (15m)**
Practical session on ethical data handling, privacy laws, and responsible analytics practices.
- **Getting Started with Google Sheets for Data (22m)**
Hands-on exercises to import, organize, and perform basic calculations in Google Sheets.
- **Overview of SQL and Databases (18m)**
Learn SQL syntax, database structures, and how to run simple queries for data retrieval.
- **Planning Your Learning Path for the Certificate (10m)**
Create a study schedule and set milestones to stay on track with your certification goals.

Core Concepts

- **Data Cleaning Techniques with Google Sheets (28m)**
Real case study on cleaning messy datasets using functions like TRIM, CLEAN, and data validation.
- **Writing Your First SQL Queries (25m)**
Step-by-step guide to SELECT, WHERE, and ORDER BY clauses for basic data extraction.
- **Exploring Data with Spreadsheets (20m)**
Use pivot tables, charts, and summary statistics to uncover patterns in spreadsheet data.
- **Introduction to Data Visualization Principles (18m)**
Learn chart types, design best practices, and how to choose visuals for different data stories.
- **Using Google Data Studio for Reports (22m)**
Create interactive dashboards and reports by connecting data sources in Google Data Studio.
- **Data Aggregation and Grouping in SQL (30m)**
Practice GROUP BY, HAVING, and aggregate functions like SUM and AVG for summarized insights.
- **Handling Missing Data and Outliers (25m)**
Problem-solving session on identifying and addressing gaps or anomalies in datasets.
- **Joining Tables in SQL (32m)**
Master INNER JOIN, LEFT JOIN, and other methods to combine related tables for analysis.
- **Creating Effective Charts and Graphs (20m)**
Build bar charts, line graphs, and scatter plots with clear labels and annotations.
- **Data Storytelling Basics (15m)**
Craft narratives from data using visuals and summaries to communicate findings clearly.

Deep Dive

- **Advanced SQL Functions and Subqueries (35m)**
Use window functions, CTEs, and nested queries for complex data transformations.
- **Introduction to R Programming for Data Analysis (40m)**
Set up R, learn basic syntax, and perform data manipulation with vectors and data frames.
- **Statistical Analysis with R (38m)**
Calculate descriptive statistics, correlations, and distributions using R packages.
- **Data Manipulation with dplyr (30m)**
Step-by-step guide to filtering, selecting, and mutating data with dplyr functions.
- **Time Series Analysis Fundamentals (28m)**
Analyze trends and seasonality in time-based data with R tools and examples.
- **Probability and Distributions in Data (25m)**
Understand key probability concepts and apply common distributions to real datasets.
- **Hypothesis Testing with R (32m)**
Conduct t-tests and chi-square tests to make data-driven decisions in case studies.
- **Advanced Data Visualization with ggplot2 (35m)**
Create multi-layered plots and custom themes using ggplot2 for detailed insights.
- **Working with Large Datasets (30m)**
Techniques for handling big data in SQL and R, including optimization and sampling.

Advanced Application

- **Real-World Case Study: Retail Sales Analysis (45m)**
Apply SQL and R to analyze sales data, identify trends, and make business recommendations.
- **Building a Data Pipeline with Google Cloud (40m)**
Set up automated data flows using Google Cloud tools for efficient processing.
- **Machine Learning Basics for Data Analysts (50m)**
Introduction to supervised learning models and how to use them for predictive tasks.
- **Predictive Analytics with Linear Regression (42m)**
Build and evaluate linear regression models in R for forecasting outcomes.
- **Case Study: Customer Segmentation (38m)**
Use clustering techniques in R to group customers based on behavior and demographics.
- **Automating Reports with R Scripts (35m)**
Write R scripts to generate scheduled reports and update dashboards automatically.
- **Data Analysis in Business Decision-Making (30m)**
Session on translating data insights into actionable strategies for organizations.
- **Working with APIs and Web Data (45m)**
Extract data from web APIs using R and process it for analysis in projects.
- **Case Study: Healthcare Data Analytics (40m)**
Analyze patient data ethically, using SQL and R to improve healthcare outcomes.
- **Advanced Visualization Techniques (35m)**
Create interactive plots and geospatial maps for complex data presentations.

- **Data Quality Assurance Methods (28m)**
Implement checks and validation steps to ensure data accuracy and consistency.
- **Project Management for Data Projects (30m)**
Plan and execute data analytics projects with timelines, resources, and deliverables.

Implementation & Next Steps

- **Preparing for the Google Certification Exam (55m)**
Review key topics, exam format, and time management strategies for test day.
- **Mock Exam: Practice Questions and Review (60m)**
Full-length practice exam with detailed explanations for each question type.
- **Building Your Data Analytics Portfolio (45m)**
Create a portfolio showcasing projects from this course to impress employers.
- **Resume and LinkedIn Optimization for Data Roles (35m)**
Tailor your resume and LinkedIn profile with data skills and certification details.
- **Networking in the Data Analytics Community (25m)**
Find and engage with professional groups, forums, and events for opportunities.
- **Interview Preparation for Data Analyst Jobs (50m)**
Common interview questions, case studies, and tips for technical and behavioral rounds.
- **Continuous Learning Resources and Tools (30m)**
List of books, online courses, and tools to keep skills current after certification.
- **Staying Updated with Data Analytics Trends (20m)**
Follow industry news, research papers, and emerging technologies in data field.
- **Ethical Considerations in Advanced Analytics (35m)**
Deep dive into bias, fairness, and accountability in data projects and models.
- **Case Study: End-to-End Data Project (70m)**
Complete project from data collection to presentation, applying all learned skills.
- **Peer Review and Collaboration Exercises (40m)**
Work with others to critique and improve data analysis reports and visualizations.
- **Setting Up a Personal Data Lab (45m)**
Configure a local environment with databases and R for independent practice.
- **Next Steps: Specializations and Further Certifications (25m)**
Explore advanced paths like Google Cloud Data Engineer or machine learning specializations.

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