

Data Analytics — Course Curriculum

Become a job-ready Data Analyst with Excel, SQL, Python, Power BI & Tableau

Total: 63 Hours

Free Foundation: 15 Hours

Paid Job-Ready: 48 Hours

100% Online · Live Instructor-Led

About this program: A 63-hour, fully online, job-ready course that takes you from analytics fundamentals to a complete, insight-driven analytics project. You start with 15 free foundation hours (analytics concepts & Excel, SQL, statistics, and Git) and continue into a 48-hour paid program covering advanced SQL, Python with Pandas & NumPy, data cleaning and wrangling, dashboards with Power BI and Tableau, statistics and A/B testing, exploratory data analysis and data storytelling, and cloud analytics with BigQuery — finishing with an end-to-end analytics capstone, a portfolio, and full interview preparation.

Free Foundation — 15 Hours

Start learning for free. Build your core analytics, Excel, SQL, and statistics foundations before advancing to the job-ready program.

Module 1: Data Analytics Foundations & Excel

Estimated Time: 5 Hours

Learning Objectives

- Understand the data analytics workflow and roles
- Analyze data confidently in spreadsheets

Topics

- What data analytics is and the analyst workflow
- Excel formulas, functions, and data cleaning basics
- Pivot tables, charts, and lookup functions

Hands-on

- Build an Excel analysis workbook with pivot tables and charts

Module 2: SQL for Data Analysis

Estimated Time: 5 Hours

Learning Objectives

- Query and analyze data with SQL
- Answer business questions directly from databases

Topics

- SELECT, WHERE, GROUP BY, and ORDER BY
- Joins, keys, and relationships
- Aggregations, subqueries, and filtering for analysis

Hands-on

- Write SQL queries to analyze a real business dataset

Module 3: Statistics & Analytical Thinking

Estimated Time: 3 Hours

Learning Objectives

- Apply core statistics to interpret data
- Think analytically about business problems

Topics

- Descriptive statistics: mean, median, spread
- Distributions, correlation, and outliers
- Framing questions and metrics that matter

Hands-on

- Summarize and interpret a dataset statistically

Module 4: Version Control with Git & GitHub

Estimated Time: 2 Hours

Learning Objectives

- Track your analysis code and notebooks with Git
- Collaborate and showcase your work on GitHub

Topics

- Repositories, commits, and branches
- Merging, pull requests, and conflict resolution
- Building a professional analytics GitHub profile

Hands-on

- Push your first analysis projects to GitHub

Paid Job-Ready Program — 45–50 Hours (48 Hours)

Go from foundations to fully employable: advanced SQL, Python, data cleaning, Power BI & Tableau, statistics and A/B testing, and cloud analytics — then ship a full project.

Module 5: Advanced SQL for Analytics

Estimated Time: 5 Hours

Learning Objectives

- Write advanced analytical SQL
- Answer complex business questions with data

Topics

- Window functions and common table expressions (CTEs)
- Advanced joins, CASE logic, and date functions
- Cohort, funnel, and time-series analysis in SQL

Hands-on

- Build an analytical SQL report with window functions

Module 6: Python for Data Analysis (Pandas & NumPy)

Estimated Time: 6 Hours

Learning Objectives

- Analyze data programmatically with Python
- Manipulate datasets with Pandas and NumPy

Topics

- Python essentials for analysts
- NumPy arrays and Pandas DataFrames
- Filtering, grouping, merging, and aggregating data

Hands-on

- Analyze a dataset end to end in a Pandas notebook

Module 7: Data Cleaning & Wrangling

Estimated Time: 5 Hours

Learning Objectives

- Turn messy raw data into analysis-ready datasets
- Handle missing, duplicate, and inconsistent data

Topics

- Missing values, duplicates, and data types
- Reshaping, merging, and joining datasets
- Feature creation and data quality checks

Hands-on

- Clean and prepare a messy real-world dataset

Module 8: Data Visualization with Power BI

Estimated Time: 5 Hours

Learning Objectives

- Build interactive dashboards in Power BI
- Model data and write DAX measures

Topics

- Connecting, transforming, and modeling data
- Visuals, filters, and interactive reports
- DAX measures and calculated columns

Hands-on

- Build an interactive business dashboard in Power BI

Module 9: Dashboards & Reporting with Tableau

Estimated Time: 5 Hours

Learning Objectives

- Create compelling dashboards in Tableau
- Design reports that communicate insights clearly

Topics

- Connecting data and building worksheets
- Calculated fields, parameters, and filters
- Interactive dashboards and story points

Hands-on

- Build and publish an interactive Tableau dashboard

Module 10: Statistics, A/B Testing & Business Metrics

Estimated Time: 4 Hours

Learning Objectives

- Apply statistics to real business decisions
- Design and interpret A/B tests

Topics

- Hypothesis testing and confidence intervals
- A/B testing design and interpretation
- KPIs, business metrics, and experimentation

Hands-on

- Analyze an A/B test and recommend a decision

Module 11: Exploratory Data Analysis & Data Storytelling

Estimated Time: 4 Hours

Learning Objectives

- Explore data to uncover patterns and insights
- Communicate findings with clear data stories

Topics

- EDA workflow with Pandas, Matplotlib, and Seaborn
- Visual best practices and chart selection
- Turning analysis into a persuasive narrative

Hands-on

- Run an EDA and present a data-driven story

Module 12: Advanced Excel & Google Sheets Automation

Estimated Time: 3 Hours

Learning Objectives

- Automate reporting in Excel and Google Sheets
- Speed up recurring analysis tasks

Topics

- Advanced formulas, Power Query, and what-if analysis
- Dashboards and templates in Sheets
- Automating reports and connecting live data

Hands-on

- Build an automated reporting spreadsheet

Module 13: Cloud Analytics & Intro to Big Data (BigQuery)

Estimated Time: 5 Hours

Learning Objectives

- Analyze large datasets in the cloud
- Query data warehouses with SQL at scale

Topics

- Cloud data warehouses and BigQuery basics
- Querying large datasets efficiently
- Connecting BI tools to cloud data

Hands-on

- Analyze a large dataset in BigQuery and visualize it

Module 14: Capstone Analytics Project, Portfolio & Job Readiness

Estimated Time: 6 Hours

Learning Objectives

- Ship a complete, portfolio-ready analytics project
- Prepare for the data analyst job search

Topics

- End-to-end capstone: data to dashboard to insights
- Portfolio, GitHub, and resume optimization
- Data analyst SQL, case-study, and interview prep

Hands-on

- Build and present an end-to-end analytics project; mock interviews and resume review

Free Foundation: 15 Hours | **Paid Job-Ready Program:** 48 Hours | **Total Course:** 63 Hours (60–65)

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